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TEACHERS COLLEGE RECORD

A Rational Faith in Education*

GEORGE S. COUNTS

PROFESSOR EMERITUS OF EDUCATION, TEACHERS COLLEGE

INTRODUCTORY STATEMENT

THE Brazilian Center of Educational Research of Rio de Janeiro is a Brazilian Government institution set up to coordinate educational research in the country, together with five other Regional Centers, located respectively at Pôrto Alegre, São Paulo, Belo Horizonte, Salvador, and Recife.

Within its program the Center has organized a series of lectures, under the title "Education and Society," to be given every year by a national or foreign educator of outstanding eminence, and involving great contemporary problems related to education.

For the first year of this series of lectures, the Center was proud of being able to bring to Brazil one of the foremost social thinkers of our times, Professor George S. Counts, from Teachers College, Columbia University.

The lectures on "Education for a Society of Free Men in the Technological Era," now to be published in consecutive issues of TEACHERS COLLEGE RECORD, will also very soon be published in Portuguese, in order to extend, in the form of a book, the profound impression they made on those who had the privilege of attending them personally.

Professor Counts was able to transmit a message of hope and greatness, encouraging us to rise to the challenge brought about by our disturbed and dynamic times.

Short though intense, the sojourn of Professor Counts in Brazil left among Brazilian educators many friends who like to call him "our teacher." No one else could initiate our "Education and Society Lectures" and give to them, at the beginning, the range and the tone we desire for such lectures.

ANÍSIO TEIXEIRA, *Director of the Brazilian Center of Educational Research*

WE IN the United States have a long record of faith in both the *power* and *beneficence* of education. And we have commonly identified education with the work of the school. From early times we have associated education with the advance of civilization and the cause

* Dr. Counts is lecturing in many colleges and universities and before professional and civic groups. He is a member of the P.E.N. Club and State Chairman of the Liberal Party of New York. His most recent publication is *The Challenge of Soviet Education.*

of human freedom. During colonial days, even as we struggled to survive in a strange land, we nurtured this faith. The founders of the Republic, under the influence of the revolutionary thought of the age in both Europe and America, believed that the strength of the new nation would depend on the spread of learning and enlightenment. "If the condition of man is to be progressively ameliorated, as we fondly hope and believe," wrote Thomas Jefferson, father of our democracy, "education is to be the chief instrument in effecting it." The great champions of popular liberty throughout our national history have generally insisted that the survival of free institutions requires an educated people. Horace Mann, father of the common school, a school open to all children regardless of class, religion, or family circumstance, expressed the sentiments of succeeding generations when he said: "The Common School is the greatest discovery ever made by man." And the National Education Association has chosen as the slogan for its one-hundredth anniversary in 1957: "An educated people moves freedom forward." So, when confronted with difficult personal or social problems in the present critical epoch, we are inclined to turn to education as an unfailing solution.

Our historic faith has been translated into vigorous and sustained action. In 1837 Francis J. Grund, a Bohemian-born and Austrian-educated American writer, observed that "with the exception of Protestant Germany, there is no country in which so much has been done for the education of children, as in the United States of America." During the next century we developed a comprehensive system of public schools which has challenged and influenced the educational thought and practice of the Old World. In our justly celebrated "educational ladder" we repudiated the European aristocratic idea of separate schools for the "classes" and the "masses" and established the *principle* of a single educational system for all the people. Reaching from the kindergarten to the graduate and professional faculties of the university and designed to shatter the time-honored social barriers to advanced training, it is one of the finest and most distinctive expressions of our democracy. Although the measures adopted have by no means overcome differences in family income and cultural heritage or fully equalized educational opportunities at the higher levels, our secondary schools and colleges probably enroll as many young people from fourteen to twenty-two years of age as the corresponding institutions of all the rest of the world. Moreover, wherever the system of rigid social classes is rejected the "educational ladder" is welcomed.

The contribution to our democracy of this vast network of schools can scarcely be overemphasized. If they were to be closed for a generation, our entire economic and political fabric would disintegrate and we would be forced back to some relatively primitive and simple mode of life. That there are grave defects and shortcomings in both the conception and the administration of our schools must be granted. Yet with all their deficiencies they constitute one of the glories of our Republic.

II

Our faith in the beneficence of schools, however, has ofttimes been uncritical and superficial. As a people we have rarely, if ever, inquired deeply into the social, moral, and cultural foundations of education. We have failed to give sufficient thought to the diversity of educa-

tional conceptions and programs in history and in the contemporary world. We have equated education with enlightenment and enlightenment with education. We have assumed it to be a process that goes on more or less naturally and inevitably in the school and is good in any quantity for the ills besetting mankind and for the advancement of popular rule. We have assumed further that in essence it is a single thing, everywhere the same, governed by its own laws, feared by despotisms, and cherished by free peoples. We have tended to identify it with democracy and human progress, not sensing clearly and positively that there is an appropriate education for every society or civilization and that a form which is suited to one may destroy another. Long ago we could have read and pondered with profit the sage observation of Montesquieu that "the laws of education ought to be in relation to the principles of government." If we had, the National Education Association would not be proclaiming without qualification today that "an educated people moves freedom forward."

Our uncritical attitude may have had a certain justification in the nineteenth century when, with a single exception, autocratic states opposed the founding of schools in order, as we used to say, "to keep their people in ignorance." The case of Prussia, which led the world in the development of an efficient system of elementary education for the masses, was conveniently disposed of as "the exception that proves the rule." We did not realize that the word "proves" in this old English adage actually meant "tests" and consequently implied that if the rule could not embrace the exception the rule itself would have to be abandoned. Certainly the renowned *Volksschule* strengthened rather than weakened the Hohenzollern dynasty. This was demonstrated in the Seven Weeks' War between Prussia and Austria in 1866. "The victory of the Prussians over the Austrians," wrote the German historian Oskar Peschel, "was a victory of the Prussian over the Austrian schoolmaster."

The rise of the contemporary totalitarian states, of the so-called "popular despotisms" of the twentieth century, has made imperative a critical re-examination of our historical conceptions. These states have equalled or surpassed the democracies in their devotion to and support of schools and other forms of organized education, most strikingly perhaps in the case of the Soviet Union. We should know now that literacy, earlier regarded as a reliable index of popular enlightenment, may be an instrument through which a controlled press may enslave a whole people. We should know also that the level of human culture cannot be measured by the number of schools and other agencies maintained by a society for the instruction of the young. Germany under the Nazis and Japan under the military caste were among the most literate and well-schooled lands on the face of the earth. Our traditional faith in education as a liberator of mankind is justified only if education is carefully and effectively directed toward such a purpose.

III

An unvarnished account of the role of organized education in history from the age of pre-literate man to the middle of the twentieth century fails utterly to support the traditional faith in the beneficence of schools and other agencies for the rearing of the young. The period between the great wars, as we have suggested, is particularly illuminating in this

respect. The record should teach us that only an education designed to serve beneficent ends can ever be beneficent in any human conception of the term.

In *The Outline of History*, published in 1920, H. G. Wells, one of the prophets of our time, declared that "human history becomes more and more a race between education and catastrophe." During the 1920's this statement was probably quoted more widely and favorably than any other by educators in the United States. It was clearly in accord with our traditional faith. Early in 1939, in *The Fate of Man*, Wells observed that catastrophe "was well on its way," that education seemed "unable to get started," that indeed it had not even "readjusted itself to start." He concluded with the melancholy thought that "the race may, after all, prove a walk-over for disaster."

We know today that catastrophe triumphed and with terrifying swiftness. What went wrong? Did the nations of the world fail to build enough schools or train enough teachers? Or did education prove to be a feeble force in society? Actually the race was not between education in general and catastrophe, as Wells himself would have been the first to admit. The years between the wars witnessed an unprecedented expansion of organized education, of schools and colleges and other agencies for informing and molding the mind. In fact, never before had the problem of rearing the young and instructing the old received so much attention from the heads of government and the leaders of society. In the United States the number of students attending secondary schools increased from 2,500,000 in 1920 to 6,925,000 in 1940, while the enrollment in higher schools advanced from 750,000 to 1,800,000. During the same period Soviet Russia probably directed a larger *proportion* of the total national income to the support of education than any other country in history. The number of young and old attending schools and classes of all grades and types advanced from eight or nine millions to probably thirty-five millions. Following the Revolution and particularly after the launching of the First Five-Year Plan in 1928 the Soviet leaders conducted the most comprehensive campaign ever attempted to wipe out illiteracy. And the entire cultural apparatus, including the press, the radio, the theatre, the cinema, and even the circus, was directed toward the achievement of educational goals established by the Communist dictatorship. The Axis powers—Germany, Italy, and Japan—spent enormous sums on education and gave as close attention to shaping the minds of children and youth as to the reconstruction of the economy and the strengthening of the armed forces. In many other countries it was an era of educational expansion.

Comparatively little of this expansion was designed to prevent catastrophe. Indeed to a very large degree education between the wars was actually the handmaiden or midwife of catastrophe. This was obviously and avowedly true in the case of the totalitarian states. Children were taught in Italy that the time had come to restore the Roman Empire, that "it is better to live a day as a lion than a thousand years as a lamb"; in Germany that the Nordic race is immeasurably superior to all others, that the Third Reich is justified in extending its boundaries in all directions, that only in war does man fulfill his highest destiny; in Japan that the Japanese are the chosen people of God, that they should rightly covet the orange groves of California, that death in battle for the glory of the Son of Heaven is the most exalted pur-

pose in life. In the Soviet Union the schools were employed to foster the class struggle, to misrepresent the social institutions of "capitalist" nations, and to propagate the doctrine that Russia was the spearhead of a world revolution which in time would spread to all countries and overthrow the existing order everywhere. And the schools in all of these totalitarian states sought to inculcate in the minds of the young blind and fanatical loyalty to the dictatorship. At the same time, no free society anywhere confronted the problem of education boldly and imaginatively. Throughout the world, education, either deliberately or unwittingly, helped to bring upon mankind the disasters that came close to destroying the best in our civilization. At the very least, it was not designed, either in conception or in practice, to oppose the swift advance of catastrophe.

We know today, if we have learned the lesson of the immediate past, that organized education may or may not serve the cause of peace, liberty, and justice on the earth. In fact, we know that it may serve any cause—tyranny as well as freedom, ignorance as well as enlightenment, falsehood as well as truth, war as well as peace, death as well as life. It may even lead men and women to think they are free even as it rivets upon them the chains of bondage. Education is indeed a force of great power, but whether it is good or bad depends, not on the laws of learning, but on the conception of life or civilization which it expresses.

IV

The need today in every free society on the planet is for a great education—great in its conception and great in its operation. It is in such terms that the race, as Wells saw it more than a generation ago, is still on. We live today, to employ Arnold H. Toynbee's phrase, in a "time of troubles," perhaps the most fateful in the whole history of mankind. Since the early years of this century we have been living in a world increasingly strange and even terrifying. We have known an endless succession of crises at home and abroad. We have watched tragedy compounding tragedy in ever-mounting fury. We have seen our seemingly well-founded hopes ground under the heel of events. The solid verities and certainties of the nineteenth century seem to have vanished. Nothing appears to be secure and enduring. Social institutions, human relations, value systems, and conceptions of life and destiny are in flux. Thoughtful men and women everywhere are anxious and fearful about the future. After a retreat of centuries, despotism is on the march again.

Less than a generation ago we experienced a great economic disaster. At the very moment when our political and industrial leaders in the United States were confidently predicting an enduring and rising prosperity for an unlimited future under an economic system founded on the laws of nature, we were struck by an economic depression which rocked the foundations of the Republic and imperilled the entire free world. The marketing structure collapsed, banks, shops and factories closed, farms turned backward to self-sufficiency, wheels of transport stopped turning, lifetime savings were wiped out, twelve to fifteen million workers lost their jobs, the total income was reduced by half, and rich and poor alike were gripped by fear. In response to the general distress revolutionary doctrines spread through the land and embyronic dictators on European models appeared in the United States. This traumatic experience tempered somewhat the traditional optimism of our

people. Another disaster of such magnitude might bring additional victories to Communist totalitarianism.

Out of the dislocation of institutions, the conflict of classes, rivalries of the past, and the changing power structure of the world have come the great wars, revolutions, and counterrevolutions of our time. On this theme we need not dwell except to observe that a third world war waged with the new and ever more powerful engines of destruction might destroy advanced civilization everywhere and push mankind as a whole back toward barbarism, if it did not destroy the human race. And the epoch of revolution and counterrevolutions probably still has its course to run. It is assumed here that organized education must be conceived in the light of these troubled times and with a faith that it might illuminate the dark road which lies ahead for all mankind.

V

The twentieth century, as we have noted, has witnessed the growth of organized education and interest in organized education throughout the world. In the United States, as elsewhere, numerous teachers colleges and departments of education in our universities have been established and an enormous amount of energy has been devoted to the improvement of education. Our literature, both lay and professional, is full of discussions of what is wrong with the school and of proposals to correct its weaknesses. The shelves of our libraries are laden with educational reports, surveys, and studies, including countless doctoral dissertations. New theories and experiments follow one another in an endless stream. This activity is by no means all lost motion; it has undoubtedly resulted in considerable improvement in the conduct of the school. Yet most of it deals with either the surface or the mechanics of the problem. Indeed, some of the most widely and hotly disputed proposals for reform during our generation are little more than nostrums which largely ignore the basic problem of all educational thought—the problem of the relation of education to the nature and fortunes of our civilization in its historical and world setting. Three such proposals have received much attention during the past fifty years.

The first and most fruitful of these proposals is the development of a science of education. Early in the present century the movement to convert education into a science aroused much enthusiasm and led to the launching of innumerable experimental and statistical studies. The learning process and child growth were subjected to tireless inquiry. Every aspect of the school program was brought under investigation. Vast attention was devoted to the perfection of the machinery of education, to the integration of parts, and to the elimination of friction, to the improvement of buildings and equipment, to the standardization of procedures, to the invention of pedagogical gadgets, to the construction of tests and rating scales for both pupils and teachers, and to the keeping of records of all actions and transactions. For a time philosophy was relegated to an inferior position and the prediction was confidently made in some quarters that all educational problems would be solved by the new science. Unfortunately the traditional program of the school was taken for granted and the emphasis laid on increased efficiency in the operation of that program. Education was regarded as an autonomous process which might be studied in isolation from society and civilization and perfected according to its own laws.

That this movement has contributed much of value to the advance of education cannot be disputed. The need today is for a more generous conception of a science of education—a science that is closely integrated with all the other sciences of society and human culture. We must realize that the answers to the most profound questions regarding the conduct of education, questions involving values and purposes, will have to be found outside the school and beyond the imperatives of scientific knowledge. A science can tell us how to produce a warrior or a pacifist, a slave or a free man, but it cannot tell us that we *should do* any one of these things. Science can penetrate the secrets of the atom, but it cannot tell us whether we should make atomic bombs or convert atomic energy to peaceful purposes. Such questions lie in the realms of ethics and politics.

A second proposal seeks guidance in the interests and problems of children. The presumption here seems to be that the child achieves maturity through a process of spontaneous generation or inner unfoldment which the adult world through its educational agencies should merely guard and nourish. According to this view, the child, and not the teacher or the school, should play the decisive role in shaping both the processes and the ends of education. The interests and problems of boys and girls are assumed to constitute a more trustworthy guide than the experience and wisdom of their elders. It is argued, moreover, that any positive interference by members of the older generation is a form of imposition or indoctrination and is certain to lead to frustration and regimentation of the mind. Here, undoubtedly, is the most romantic interpretation of human nature since Rousseau.

In the proposal, however, there is an important insight. It recognizes the psychological truth that interest is a condition of effective and economical learning. The immediate concerns of the young, therefore, should always play a large role in education. Like the learning process and the "laws of the organism" generally, they provide the limits within which the teachers must operate. But those limits are known to be extremely wide and capricious. We must assume that children in their biological inheritance are essentially alike in all times and places, among all races and peoples, among all groups and classes. Yet their interests vary greatly from epoch to epoch and from society to society. Also they are extraordinarily fluid and subject to change. The interest that a child brings to school in the morning may be the result of the casual conversation of his parents at home, of a radio program devised to sell a hair tonic, of a moving picture produced with an eye on the box office, or of some incident observed in the street or on the highway. The responsibility of the school is not to follow the interests of the young, but rather to assist in arousing and building worthy, fruitful, and abiding interests.

It should be recognized also that this proposal contains a great moral affirmation. In conformity with the democratic ethic, it affirms that the child is a person and that his personality should always be treated with respect and regarded as precious. The historical record of the treatment of the young by their elders, including their teachers, is full of horrors. The liberation of boys and girls from the reign of adult tyranny and ignorance is one of the marks of a humane civilization. Yet respect for the personality of the child is expressed most fully in an educational program dedicated to the development of a mature personal-

ity deserving respect. "We see quite clearly," writes the great Polish anthropologist, Bronislaw Malinowski, "why the freedom of the child, in the sense of letting him do what he wishes and as he likes is unreal. In the interest of his own organism he has constantly to be trammeled in education from acts which are biologically dangerous, or which are culturally useless. His whims, his fits of idleness or disobedience must be gradually curtailed, formed and translated into culturally relevant choices. There is also no freedom in action except within the context of organized human groups."[1] We should never forget that societies rightly establish schools so that the child may become something which otherwise he would not become.

A third proposal which has been before us for about a quarter of a century finds the solution of the educational problem in the study of the so-called "one hundred great books" at the college level and preparation for their study in the lower schools. It must be admitted at once that from the standpoint of the teacher this is the most attractive proposal now current. It is the ideal answer of the pedagogue to the truly perplexing problems confronting education. In the first place, it would give him a virtual monopoly over a special body of knowledge, with no competitors. If he could only convince the other members of society of the worth of this esoteric knowledge, he would be in the enviable position of a long line of ancestors reaching back to the shaman and the medicine man of primitive society. In the second place, once having mastered the "great books" he could pursue his calling for the rest of his life without being disturbed by the issues of depression and prosperity, of war and peace, of tyranny and freedom, of the future of his country and mankind. He could withdraw from the world and dwell all his years in a scholastic paradise. He could be fairly sure, moreover, that only two or three books at most would be added in his lifetime, that their status would be uncertain for at least a century, and that anyway they could not equal in excellence those written by the "ancients" long ago.

The basic argument of the proposal seems to be that education is essentially a process of mental training, that the great literary classics are the finest product of the human mind, and that therefore they are the best tools for the training of the mind. As a matter of fact, education is far more than mental training: it is first of all a process of inducting the young into the ways, privileges, and responsibilities of a given society. Also, these classics, precious as they are, cannot be said without qualification to be the finest products of the human spirit: they scarcely rank above a great living civilization, a successful system of democratic government, a vast industrial enterprise, a splendid labor union, a famous scientific laboratory, or even a fine human being who possibly never read a single one of them. Likewise, that they are the best tools for the development of the mind is hardly supported either by the history of education or by psychological investigation. Experience suggests rather that this is the surest road that man has yet discovered to formalism, sterility, and stagnation in education. Although the proposal tends to correct the overweening concern of my countrymen for the immediate and the narrowly practical, directs attention to certain sublime achievements of the mind of man, emphasizes the processes of thought and

[1] Bronislaw Malinowski, *Freedom and Civilization* (New York, Roy Publishers, 1944), p. 145.

reflection, and stresses universal and enduring elements in the human heritage, it is fundamentally a manifestation of academic nostalgia. It constitutes an attempt to retire, without sacrifice of glory, from the present troubled age.

VI

From some things I have said in this address my audience might infer that I have little faith in the beneficence of education. Such an inference would be a mistake. I share in large measure the historic faith of my people. The education of the younger generation is a sublime trust. With appropriate qualifications, I find myself in accord with the views expressed by the greatest Russian educator of the nineteenth century, K. D. Ushinsky. Even though working in an "impoverished and unpretentious school," he said, the teacher is a "living member of a great organism which is toiling for the perfection of mankind, which is striving for truth and justice." Even though his cause is modest at first sight, it is "one of the greatest causes of history—a cause on which kingdoms and generations rest." Such is the ideal to which we must all subscribe.

Education, however, as we have emphasized, can never be a purely autonomous process, independent of time and place, conducted according to its own laws. There have been as many educations in history as there have been human societies. It is as much an integral part of a culture or civilization as an economic or political system. The very way in which education is conceived, whether its purpose is to enslave or free the mind, is an expression of the society which it serves. Although all educational programs in the world today should embrace the conception of a common humanity, no such program as a whole should be regarded as an article of export either with or without the support of dollars or machine guns. Of necessity an education is a most intimate expression of a particular civilization.

We must seek the broad outlines of a great education therefore, not in the nature of the child, nor in the traditional practices of the school, nor yet in any single segment of our civilization. Such an education must embrace four great tasks in a free society. First of all, it must assure mastery on the part of the younger generation of the essential practical skills and knowledges of the social heritage. Second, it must promote with unflagging zeal an understanding of the world as it is and as it is becoming. Third, it must strive without apology to inculcate in the young loyalty to the great values of a society of free men. Fourth, it must stress the universal in the total human heritage, stimulate the creative faculties of man, and contribute to the advancement of all the humane arts and sciences. Such an education might serve to prevent catastrophe and facilitate the birth of an age of abundance, freedom, justice, beauty, and peace for all mankind.

The Mathematics Curriculum for the High School of the Future*

HOWARD F. FEHR†

PROFESSOR OF MATHEMATICS, TEACHERS COLLEGE

The present high school curriculum in mathematics is a traditional one. It is outmoded, oriented to nineteenth century mathematics and physics, and no longer provides for present or anticipated needs of high school students. The mathematics curriculum of the future must meet the needs of mathematics, physical sciences, social sciences, engineering, technology, industrial management, and other areas of human endeavor as they are carried on in the second half of the twentieth century. If we are to proceed wisely in constructing a curriculum for the future we must examine first some defects of the present curriculum, second, the present mathematical needs of our society, and third the changing concepts and new developments in mathematics. Then we must temper this mathematical knowledge with our knowledge of the maturity and learning ability of the high school population.

* This article is based on a talk given at the Conference on the American High School, held at the University of Chicago.

† Dr. Fehr is president of the National Council of Teachers of Mathematics and a member of the Mathematical Association of America and the American Mathematical Society. He is the author of *Secondary Mathematics* and co-author (with Veryl Schult) of *Arithmetic at Work* and *Arithmetic in Life*, all published by D. C. Heath.

THE TRADITIONAL PROGRAM

Today the ninth-year mathematics program is commonly given to a study of elementary algebra. What is this study? The manipulation of symbols according to rules in a structureless system.

There are no proofs, there is no system of axioms, there are no undefined terms; the instruction is mostly "how to do." Such terms as literal numbers, general number, unknown, and algebraic numbers are for the most part meaningless, or even confusing. A student learns how to solve equations, but not what an equation is, or what operations are allowable and why, or what the solution indicates. If he is asked to apply his knowledge of solution of equations to problems, the latter must be explained in great detail. That a student learned a set of operations, mostly meaningless to him, and that he can do little with them in any original setting has been shown again and again.

In the tenth or eleventh year the study of this algebra is continued as intermediate algebra. How? By first reviewing the skill algebra of the ninth year in exactly the same way with more complex situations. Then the student learns "how" to handle exponents, logarithms, systems of

equations, progressions, and the binomial expansion without any hint that proof in an axiomatic system is as essential in algebra as it is in dealing with geometric elements. If he is introduced to any other topic it is usually permutations, combinations, and probability. But these are taught in an antiquated manner, ill-adapted for application to modern problems in statistical processes. The function concept present in most texts is no longer generally accepted by mathematicians, and even when presented it contributes little to understanding this important aspect of mathematics.

In either the tenth or the eleventh year the student also studies plane geometry, more correctly termed Euclidean synthetic plane geometry. What does he learn here? He gets an introduction into the physics of a plane through the use of definitions, undefined terms, and a set of assumptions. A year-long chain of theorems follows that in most cases results in large quantities of mere memorization. At the end of the year the student may be a bit more clever at discovering deductions of "so-called" originals, but is he really a better mathematician with a real understanding of the axiomatic structure of mathematics? The answer must be NO!

Twelfth-grade mathematics in the American high school is the grandest fiasco of all mathematical programs. A half year of solid geometry contributes nothing new to an understanding of mathematical structure. The geometry of the sphere, which could become a fine self-contained unit of study, is buried under a heap of useless applications.

To cap the climax we have a semester of trigonometry, which is usually concluded with two months of solution of oblique triangles by the use of logarithms. General angle, reduction formulas, identities, and equations as taught contribute little to an understanding of trigonometry that is of value for further work in mathematics.

SOCIETY'S NEED FOR MATHEMATICS

Now let us look at the role that mathematics is coming to play in our culture. I shall omit all reference to general education and the mathematical needs of all citizens as a part of their general education. It suffices to say that all citizens need a working knowledge of arithmetic, elementary algebra, and geometric relations and measures. All secondary school students should study mathematics until they have mastered these necessary facts, concepts, and skills. Here I would speak of the newer and more advanced mathematical needs of society.

The degree to which mathematics is applied to the other sciences and to so-called non-scientific social activities has increased tremendously during the last few decades and is increasing continually. Mathematics has always contributed to the fields of physics, engineering, and technology. More recently mathematical methods have been applied to industrial planning, medicine, biochemistry, biophysics, and sociology. Even problems in philosophy and linguistics are being attacked through the use of mathematical logic.

In all of this increased activity it is a curious fact that, although the first investigations were begun by mathematicians, on the whole it is not mathematical propaganda or advertising that has made the situation what it is. It resulted from a genuine demand on the part of workers in these fields who came to feel more and more helpless when they could not handle mathematical methods.

The number and variety of mathemati-

cal disciplines have greatly increased in the last sixty years. New branches of knowledge based on mathematical methods have been created. Among these can be mentioned: Design of Experiments, Mathematical Population Theory, Theory of Risks, Symbolic Logic, Biomathematics, Factor Analysis, Quality Control, Mathematical Theory of Communication, Information Theory, Theory of Strategy and Games, Linear Programing, Periodogramanalysis and Time Series, and Statistical Decision Theory. While not all of these new theories have produced practical results commensurate with their mathematical structure, the judgment of workers in the field is that the mathematical approach has been on the whole beneficial to their particular domains.

Mathematicians themselves are creating new branches of pure mathematics, much of it knowledge that did not exist sixty years ago. We may mention axiomatics, abstract algebra including the theory of groups, rings, fields, and vector spaces; combinatorial topology and algebraic topology; lattice theories; general theory of sets; theory of linear spaces; tensor calculus; and even metamathematics—a study about, not of, mathematics.

I hasten to add that I know little of these fields of applied and pure mathematics except that they exist; that they have burst the existing compartments that house arithmetic, algebra, and geometry; and that in their very nature they make much of the classical treatment of high school mathematics obsolete. (Note that I said *the treatment*, and not the mathematics itself, becomes obsolete.)

NEW POINTS OF VIEW

In the past one hundred years the nature of mathematics as a subject has been substantially altered by the results of mathematical research and by its applications. Some of this research can have significant impact on the high school program. We can mention only a few of these newer areas of mathematical thought, however, without developing their content.

In the field of algebra we mention first the concepts of group, ring, and field—all dealing with *structural* rather than manipulative aspects of algebra. None of these concepts is difficult to grasp. The concept of field enables us to study the structure of algebra rather than to merely manipulate algebraic expressions. This concept has given rise to studies of different algebras: linear associative, vector, multilinear, and so on. This aspect of algebra has reshaped the thinking and the type of research that are now being done at the frontiers of mathematical knowledge.

An advanced treatise in mathematical analysis of the 1920's–30's, always had a first chapter that contained a treatment of the real number system upon which, of course, the rest of the development rested. If you pick up treatises today, either in advanced algebra, analysis, or geometry, the first chapter is always a treatment of the theory of sets upon which the rest of the development rests. Set theory is the newest unifying concept to enter the field of mathematics. The ideas of sets in modified form can be applied to every portion of the present high school program.

In the field of geometry, new points of view are emerging also. A hundred years ago non-Euclidean geometries became firmly established as worthy structures of mathematical study, thus freeing the subject from the absolute authority of Euclid. With the advent of these new

geometries there arose a critical examination of the axiomatic foundations of Euclidean geometry. This study revealed subtle ideas in the subject that proved it to be too difficult a field for rigorous treatment at the high school level of study. The researchers also established other geometries called projective, affine, elliptic, and hyperbolic, and shattered forever the idea that there is only one kind of geometry. Finally, a new approach to the study of space, called Topology, has opened fields of investigation in which the very first findings are of importance to the present high school geometry program.

THE CURRICULUM OF THE FUTURE

Considering society's demands for mathematics and the modern developments in mathematics mentioned above, we can draw some inferences concerning the curriculum of high school mathematics of the future. We consider here both the junior and the senior high school.

Seventh and Eighth Grades. The first two years of the junior high school will offer an intuitive and informal study of arithmetic, geometry, and some elements of algebra. More precisely, at the end of this informal study, a student should have a mastery of the four fundamental operations with whole numbers, common fractions, and decimal fractions. This includes skill in the operations at adult level (that is, adequate for ordinary life situations) and an understanding of the rationale of the computational processes. A place-value system of numeration with special reference to our decimal system should be understood. Systems of numeration with other bases, particularly the binary system should be investigated. Pupils must be able to handle very large numbers (greater than 1,000,000) and very small numbers (less than one ten-thousandth, 0.0001). In addition, a knowledge of square root and the ability to find approximate values of square roots of whole numbers by the process of division and averaging the divisor and quotient (Newton's method) are recommended.

An understanding of the language of per cent (rate), percentage, and base is essential and in particular, the ability to find any one of these three designated numbers given the other two. The ability to treat with confidence per cents less than 1 and greater than 100 must be acquired. Applications of per cent to business practices, interest, discount, and budgets should be given only moderate treatment.

The study of arithmetic must include the understanding of ratio as used in comparing sizes of quantities of like kind, in proportions, and in making scale drawings; also the ability to operate with and transform the several systems of measure, including the metric system of length, area, volume, and weight. The nature and use of an arithmetic mean are to be stressed. The work should be directed toward an informal study of algebra.

The informal geometry must include the study of length of a line segment, perimeter of a polygon, and circumference of a circle, area of regions enclosed by polygons and circles, area of solids, volumes enclosed by solids, interior of angles (by degrees). In this work, the use of a ruler (both English and metric) and protractor is learned. The pupil should know the difference between the *process* of measuring and the *measure* of an entity and should develop the ability to apply measurement to practical situations. He uses measurement in drawing

to scale and finding length indirectly.

Further concepts of geometry that should be developed are those of parallel, perpendicular, intersecting, and oblique lines (in a plane and in space); acute, right, obtuse, complementary, supplementary, and vertical angles; scalene, isosceles, and equilateral triangles; right triangles and the Pythagorean relation; sum of the interior angles of a triangle; sides and interior angles of a regular polygon with six or fewer sides. The pupil develops skill in the use of instruments in constructing figures; he learns ideas of symmetry about a point and a line.

Further ideas included in these two years of study are the use of a line segment and area to represent numbers, the reading and construction of bar graphs, line graphs, pictograms, circle graphs, and continuous line graphs, the meaning of scale, formulas for perimeters, areas, volumes and per cents—introduced as these concepts are studied—as mathematical models, the use of symbols in formulas as place holders for numbers arising in measurement, and simple expressions and sentences involving variables.

Algebra. The study of algebra will consist largely of the same subject matter as hitherto. The difference will be in point of view, and this will be concerned principally with concepts, terminology, symbolism, and the introduction of a rather large segment of work on inequalities. The idea of one-dimensional graphs, for example, indicating the set of points for which $x<3$ will be introduced. There will be a shift of emphasis from stress on mechanical manipulation to understanding of the fundamental ideas and basic laws. The study of the nature of number systems, the variable over the system, and the basic laws for addition and multiplication, namely the commutative, associative, and distributive laws, are focal points. The application of these laws in various algebraic systems, with emphasis on their generality, the meanings of conditional equations and inequalities, of their solution sets, and of equivalent equations and inequalities will receive as much attention as the mechanics for finding the solution sets.

If this approach to algebra were merely something interesting but useless, something at an abstract level that could be learned by high school students, merely an extension of the algebra of the eighteenth century, or a game for pure mathematicians only, we could ignore it. But it is none of these. It is finding application in all the sciences pure and applied. The ideas are elementary and can give the "meaning" we have been looking for in the teaching of our algebra. It is new. It can be introduced at almost any time in the high school program. It gives to algebra a structural and unifying property. Hence, we cannot afford to ignore this approach as we reconstruct our high school program.

Concepts do not remain static in mathematics. When Leibnitz in 1675 used the word function, he used it as concomitant change. Euler in 1770 said it was the relation between y and x expressed by a freely drawn curve in the plane. Dirichlet said y is called a function of x if y possesses one or more definite values for each of certain values of x in an interval x_0 to x_1. But today a function is a subset of a Cartesian product in which the first element of an ordered pair occurs only once; that is, a function is a restricted set of ordered pairs of numbers; it is single valued. Added to this changing concept we have the introduction of the new word "relation," which is far more inclusive than function. The nature of a

function—in particular, the linear, quadratic, exponential, and logarithmic functions—will be treated as much as operations with them. Function will be distinct from a relation, and both will be related to sets of ordered pairs of numbers, and a rule or set builder.

The distributive law may be cited as an example of meaningful algebra. This law is the basic idea behind both mental and written arithmetic, the use of parentheses, factoring, multiplication of polynomials, and the manipulations of fractions. If the law is understood, most *special* methods of treating these topics can be eliminated.

Algebra will be further enhanced by introducing deductive reasoning—a procedure that should be taught in all courses of school mathematics and not in geometry courses alone. Thus geometry can be relieved of the burden of total responsibility for deductive methods. For example, students will make certain assumptions and definitions, accept certain undefined terms, and then prove theorems, for example, the square of an odd number is an odd number, and that it is always one more than a multiple of eight. Through such deductive procedures diverse bits of information become related and "hang together," thereby promoting understanding and assisting the memory. Further, such understanding contributes to the ability to use algebra to solve problems.

Throughout the presentation the concepts and language of set theory will be used. The set concept is elementary and closely related to experience. It permits a variety and richness of problems that call for creative and original thinking, and is one of the great unifying and generalizing concepts of all mathematics. Meaning becomes of utmost importance.

Geometry. The program in geometry will be vastly different from the present program. The usual one and one-half years devoted to plane and solid synthetic geometry will be reduced to considerably less than one year of study. Solid geometry as a half-year course of deductive methods will disappear entirely. Those aspects of solid geometry of importance will be developed along with the corresponding concepts of plane geometry. The treatment of the sphere can be coordinated with the circle: locus will be treated simultaneously in two and three space. The mensuration and construction problems of solid geometry will be developed on an intuitive rather than the present pseudo-deductive basis.

Since deduction is to be stressed throughout the study of mathematics it is not necessary to spend a year on deducing theorems and originals of synthetic geometry. In fact the study of plane synthetic geometry will begin with an informal and intuitive introduction to geometric ideas, followed by a discussion of the nature of deductive reasoning. The formal study will then start with the postulation of the congruence theorems, and proceed as rapidly as possible through a chain of six or eight fundamental theorems to the proof of the Pythagorean theorem. One-third of a year of study is sufficient for this.

With the Pythagorean theorem established, it is possible to proceed to analytic geometry where the fundamental ideas of distance, division of a line segment, slope, equation of a line, and equation of a circle are developed. Thus, a new powerful geometry exists for the student to use. To prove or deduce theorems and originals, both analytic and synthetic methods are now at his disposal.

Trigonometry. Vectors is another

topic of great importance both in physics and in further mathematical study. A unit on vectors, with its assumptions and undefined terms, and the ideas of displacement, multiplication by a scalar, addition, and subtraction will give the student an added tool for proving theorems in geometry and solving problems in forces, acceleration, and rectilinear motion. The study of plane vectors also gives an approach to trigonometry that permits the easy development of periodicity properties of the trigonometric functions.

Today, trigonometry has become an integral part of analysis and has hardly any support as a separate subject, isolated for a half year of study. The trigonometry of real numbers has been developed as a wrapping function of the real axis, and the sine function then repeats its values periodically every 2π, for example, $f(2\pi + x) = f(x)$. Further the sine is an odd function that is $\sin(-x) = -\sin(x)$, while the cosine is an even function that is $\cos(-x) = \cos(x)$. This behavior permits the application of trigonometry to all sorts of periodic phenomena, such as light and sound waves, alternating current, business cycles, heat flow, and harmonic analysis. The concepts of amplitude, period, frequency, and phase, in relation to the sine and cosine as functions of real numbers, have had significant effects in all branches of pure and applied mathematics.

The study of trigonometry will from the very start be related to coordinates, both rectangular and polar. It is to be noted that coordinates are to be continually used throughout the entire study of mathematics in the curriculum of the future. This is a new emphasis. The solution of triangles will play a minor role, the solution of oblique triangles being limited to the use of the law of sines and the law of cosines, without the use of logarithms. The logarithmic solution of triangles, a speedy method fifty or more years ago, has been outmoded with the advent of electric calculators.

The analytic aspects of trigonometry will be emphasized. In the past, in applications to surveying and navigation, the solution of plane and spherical triangles was the central theme. In the newer uses of trigonometry it is the circular functions of real numbers that occupy the central theme. The study of these functions is greatly facilitated by the concept of a function as a set of ordered pairs of numbers. The usual formulas will be developed with the use of coordinate geometry and in the spirit that trigonometry is a study of periodic functions of real numbers.

Twelfth Year. The elimination of parts of traditional algebra, and much of Euclidean geometry, gives us time to complete the high school program with a study of those topics of advanced algebra that can properly be classified as modern analysis. There will be a study of the elementary functions—polynomial, rational, exponential, logarithmic, and inverse functions. This leads to study of absolute value and limits, followed by a unit on polynomial calculus developed from a meaningful and conceptual viewpoint and not one that is formalistic and mechanical.

I would add one more item of study to the high school curriculum of the future. Just where and how it is to come into the curriculum must be worked out. This is the topic of probability and statistics. Many of the newer applications of mathematics are those underlying chance, that is, probability and statistical inference. These applications involve problems in safety, genetics, longevity,

industrial planning, cost of living, occupational choice, testing, measuring, public opinion poles, theory of games, and so on. Statistical thinking is playing a greater and greater role in the life of educated men and women. An introduction to statistical inference with probabilistic conclusions is as important as the study of deductive systems with universal conclusions.

The two important aspects of statistics are: (1) in a distribution of attributes arising from chance causes there is a coexistence of stability (a central tendency) accompanied by a variation; and (2) by proper sampling techniques based on mathematical probability theory, both the stability and the variation of the entire population can be predicted to a high degree of confidence. The study of the first aspect is accomplished in descriptive statistics, that is the collection, organization, and analysis of numerical data through the use of frequency tables, graphs of distribution, the arithmetic mean, mode, and median, the range, and standard deviation. The second aspect is acquired through the study of combinatorial analysis and partitioning of sets. Both these aspects will be in the mathematics curriculum of the future.

SUMMARY OF THE CURRICULUM

The aim of this entire curriculum is to enable those who are capable and desire to study science, mathematics, technology, or engineering, to enter college prepared to begin a rigorous freshman course in Differential and Integral Calculus. Realizing this aim will be a necessity for the development of our country's scientific progress in the immediate years ahead of us. All highly capable students should pursue this study. For the other college-bound students, the more advanced part of the proposed curriculum may be delayed and studied as a first-year college program such as that proposed by the College Undergraduate Program Committee of the Mathematical Association of America.

Any seventeenth century mathematician reappearing upon earth today could enter most classrooms in our high schools and, without any preparation, teach the present traditional curriculum, so far is it behind the times. But in order to handle the curriculum proposed here, the seventeenth century mathematician would be at a total loss and have to bring himself up to date with respect to fundamental concepts in every field included in the curriculum—algebra, geometry, trigonometry, calculus, statistics, logic. Most important of all, he would have to catch the spirit of modern mathematics, which began in the twentieth century, a spirit wherein we seek *patterns* of thought, mathematical forms, rather than specific tricks.

It is in this sense that the proposed curriculum is modern and for the future.

Finally, I should like to add only one word concerning those in high school who are not capable or not planning to go to college. Many of the present courses and textbooks for these students are a rehash and stew of everything under the sun. There is no organization, structure, or systematic development of mathematics in many of the books or proposed curricula. It is my hypothesis that the mathematics for these students will and must be the same as the elementary portions of the curriculum I have outlined. The mathematics used in general education in enabling us to understand our universe and solve our daily quantitative problems is the same mathematics that the scientist uses in his research into nature. The difference is one

of complexity and depth. It is merely longer time and more concrete illustrations that are needed for the slow learner, and not a different type of curriculum.

PREPARING TEACHERS FOR THE NEW PROGRAM

Many teachers are convinced that arguments for curricula reform are valid, and that modernization of the curriculum is not only in order but long overdue. These teachers strongly desire to bring their programs and their teaching up to the highest possible standards. At the same time they ask, Who is sufficient to do these things? I shall try to give a brief answer.

Only a very small per cent of the present teachers can possibly have had up-to-date training in subject matter required for the task. Only those who have begun their teaching careers very recently have had an opportunity to take college courses modern in content, and even most of these teachers have had collegiate training of the traditional character. Many teachers are asking, What is contemporary mathematics? Where can we learn it? How can we use it in our classes?

New materials must be made available for classroom teachers, new or greatly revised textbooks must be written, and manuals for teachers must be provided. It is difficult to make changes in educational procedure. It is easy to teach what we were taught in the way we were taught. It is difficult and troublesome to teach something new to which we have heretofore never been exposed. Up to now, mathematicians have gone on their way, creating new concepts and points of view, but not communicating these to the secondary school teacher. Year after year, high school teachers have taught the nineteenth-century program in a satisfactory way, not studying or searching for newly discovered mathematics. There has thus resulted a huge gap between the frontiers of mathematical knowledge and the high school program. We must now close this gap.

The immediate concern of teachers is the study and acquisition of mathematical knowledge in the following areas.

1. Modern analysis, including the contemporary concepts of variable, function, relation, coordinates and lattices, sentences, and inequalities.
2. Modern algebra, including the basic theory of sets, groups, rings, fields, matrices, linear algebra, and vector space.
3. Modern geometry as a set of transformations, including the basic structure and elements of projective, affine, Euclidean and non-Euclidean geometries, as well as finite systems.
4. Symbolic logic, including the contemporary theory of axiomatics and nature of mathematical proof.
5. Probability, from a set-theoretic approach, including the study of trees, partitioning, combinatorial analysis and continuous, as well as discrete, data.
6. Statistics, both descriptive and inferential, including sampling theory, tests of hypotheses, tests of significance, and design of experiments.

When the teacher has mastered the elements of these areas of contemporary mathematics, then the teaching will of necessity be modern and enthusiastic.

As a fitting close to this discussion, I quote a statement made by a prominent Russian mathematician and educator, B. V. Gnedenko, in 1957.

> A teacher who reduces his task to the point that he communicates to the pupil only the sum of knowledge specified in the curriculum and merely teaches the pupil to deal with routine problems, rarely

achieves any success. From the teacher is demanded enthusiasm for his subject and the conviction that his subject is one of the most important affairs of the *nation*. From the teacher is demanded that he implant in the students a love for mathematics and a conviction of the creative powers of his students in mathematics; and that he describe in general outline before their intellectual gaze, the impressive picture of the uninterrupted development of mathematics, with its close relations to technology, the natural sciences, and all the other manifestations of human activity.[1]

Can we require any less of ourselves in the years that lie ahead?

[1] *American Mathematical Monthly*, Vol. 64, No. 6, June–July 1957.

Observations on Desegregation in Baltimore: Three Years Later*

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NEARLY four years have passed since the Supreme Court desegregation decision. Much has been written about the course of events which has brought compliance in the border states and a stalemate or open hostility in the Deep South. Little has been recorded in terms of what happens to children, teachers, and the community after desegregation has been underway for some years.

The early stories of desegregation in Washington, D. C., Baltimore, St. Louis, and Louisville were concerned largely with the factors that created smooth and successful adjustments in the integration processes. These accounts and those that have come from more recently desegregated communities, such as Nashville, all stress the importance of community preparation and support, clear and firm enforcement by local executives and police authorities, unequivocal and strong leadership by school administrators, and understanding and dedicated action by the teaching staff. We now have reliable data which prove that desegregation has taken place effectively in numerous parts of the country where, but five years ago, "This will not happen in our times, perhaps not for a hundred years," was the oft-quoted belief.

What about the fears of those who felt that it would take a century to ready their communities for desegregation? Have those concerns been borne out? What about the hopes of the nine Supreme Court Judges who felt that desegregation would erase "feelings of inferiority"?

Accounts that deal with the aftermath are just beginning to emerge. The answers, for those who feared and for those who hoped, are not yet fully clear, but evidence is beginning to pile up and give increasing significance to the decision made on May 17, 1954. Recounted below is the story of what has happened in Baltimore during the three years since that decision. Although the writer had the good fortune to observe practices in many schools and to talk to many teachers, principals, pupils, and parents, he takes responsibility for the claims he makes and the issues he presents. He credits his native Maryland soil for the

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inspiration which stimulated the desire to record these happenings.

DESEGREGATION AND JUSTIFIABLE PRIDE

On June 3, but two weeks after the Supreme Court decision, the Baltimore School Board adopted a desegregation policy and on June 10 approved the administrative plan to carry out the policy. The prompt action of the Board was an important factor in the early success of desegregation. The fact that there was no vacillation led to early unity.

On June 14, 1954, Superintendent John H. Fischer called a special meeting of the teaching staff to discuss the importance of the recently proclaimed action of the Baltimore School Board to eliminate racial segregation in September, 1954. In a stirring address, he urged that "we begin to rise above our past . . . [make] the American dream . . . more nearly true for more Americans."[1]

There is no need here for retelling the moving way in which community leaders, pupils, teaching staff, and administrators in Baltimore cooperated to make desegregation operative. Numerous accounts have already recorded Baltimore's early progress and problems.[2] At this time—more than three years after desegregation—the need is to evaluate impartially what has accompanied the process of integration; to tell what has happened to teachers, pupils, and community during this period; to relate what answers are beginning to emerge and what problems are coming to the forefront.

The Significance of Enrollment Changes. For the Baltimore Public Schools as of October 31, 1957, of a total enrollment of 159,727 pupils, 87,312 white and 72,415 Negro; 84,116 attended racially mixed schools. Every former all-white senior high school has some Negroes enrolled for the year 1957-58, nearly all such junior high schools have biracial enrollments, and most of the former all-white elementary schools have some Negroes enrolled.

It is important to note that about one-third of all former white elementary schools had remained solidly white up to October, 1957. Moreover, many of the former white schools (elementary and secondary) racially mixed in 1957 had acquired but small percentages of Negro pupils. In fact some of these schools had but a handful of Negro students. Except for a few schools, there had been no great upsurge of Negro pupils transferring to former white schools. It is also significant that not one of the former all-Negro secondary schools (and practically none of such elementary schools) had acquired any white pupils in the three-year period. Thus, important as are the enrollment changes in the three years after desegregation, in a large number of schools enrollments remained untouched or comparatively unchanged.

All these statistics indicate that city-wide enrollment changes, though not all-embracing, have been significant enough to justify the generalization that the desegregation decision has brought marked differences in the racial composition of schools.

The Inclusiveness of Education. Interestingly enough, but a few months before the Supreme Court Decision, an unofficial survey by the Maryland Com-

[1] Baltimore Department of Education, *Eliminating Racial Segregation in the Baltimore Public Schools*, p. 7, 1955. Published by Baltimore Public Schools. (Contains Dr. Fischer's entire address of June 14, 1954, and a record of School Board action.)

[2] Harry Bard, "A Baltimorean Looks at Desegregation," *Educational Leadership*, November, 1955.

mission on Human Relations indicated that most of the city's white teachers believed there was not full readiness for desegregation. Yet when the administration and School Board supported the Decision of May 17, 1954, and took a clear and unequivocal stand, the full weight of the teaching force was placed on the side of desegregation. That so many teachers had so much faith in the right thing to do was a great tribute to the high morale of the staff and to the high calibre of teacher-administrator relationships in Baltimore.

That this was solid, confirmed support by the staff was evident from the opening days of desegregation in September, 1954. Sometimes it was dramatic support, as in the days of the limited school strike when white teachers and pupils made it clear that they would not tolerate the illegal procedures of rowdyism on the part of a few white pupils and parents, stimulated largely by outside influences.* But mainly it was the quiet, unpretentious professional support that is characteristic of the teacher.

Was this the support of the heart so well expressed by Superintendent Fischer in his address to Baltimore teachers on June 14, 1954 when he stated ". . . he who would serve as teacher in a democracy must be broadly inclusive not only in his sympathy but in appreciation of the good in all manner of men."[3] Or was the support based on the experiences of teachers who had had the privilege of noting the success of biracial relationships in the entire teachers' in-service program,[4] and in pupils' extracurricular activities, such as Red Cross and Brotherhood Week programs.

Three years after desegregation no poll is needed to gather data on how the Baltimore teacher feels about the steps taken. There are many problems yet to be solved, and this article will deal with some of them, but most important of all, the big job has been done, and there is quiet pride in its accomplishment.

There are only schools now—not white, not colored. There are only children—yes, pupils with different IQ's, reading levels, ethnic, racial, and socio-economic backgrounds; but all children, who might be in one teacher's class as well as in another's now. This in itself creates a oneness of the teaching force. Any teacher's problems can be every teacher's problems.

The Supreme Court Decision said little about the Negro teacher, but it is evident that in Baltimore his head is held higher because of desegregation. He is a teacher like the rest, with pupils who may be Negro or white but with problems and joys like all other teachers. The Negro principal is an administrator like others; his pupils may be predominantly Negro or racially mixed, but his is no longer a colored school. His administrative problems are those of interest to all principals. This fact alone has brought to the Negro teacher and administrator alike greater respect for their positions and, incidentally, a greater sense of responsibility.

Community Acceptance of Responsibility. Not just the self-respect of the

* Only a small percentage of the white pupil enrollment of the few schools affected actually went out on strike September 30–October 5, 1954.

[3] *Eliminating Racial Segregation in the Baltimore Public Schools, op. cit.* p. 14.

[4] There were over 50 in-service programs, including activities related to subject areas and workshops in child study and community study, which gave teachers firsthand experiences with biracial and other intercultural activities. See Harry Bard, *Teachers and the Community*, National Conference of Christians and Jews, 1953, for data on the community-study program.

teaching force but that of the whole community rises with desegregation. It is the sort of community pride that comes from proving that people can work together. Baltimore actually had been proving this for a long time. Desegregated employment patterns in industry, in public transportation, and in government protective service had been quietly and slowly changing since the opening of World War II. There were changes in other racial restrictions. Hotel managers permitted racially mixed dinner meetings. Department stores abolished many credit restrictions on Negro trade. The leading concert hall and the city's legitimate theatre opened their doors to Negroes and permitted them to be seated anywhere in the buildings. The local governmental commission, the Baltimore Community Self-Survey of Intergroup Relations, summed up the city's change in the title of its 1955 report, *An American City in Transition*.[8] Baltimore, steeped in Southern traditions long after the turn of the century, was gradually eliminating its racial barriers.

It is important to note that some of the Southern racial traditions still exist in Baltimore. For example, the moving picture houses are still generally segregated and restaurants, with but few exceptions, still serve only white persons. Leading hotels reserve rooms for Negroes only under special circumstances. Commercial recreational establishments, namely bowling alleys, dance halls, and swimming pools, are still segregated. Thus the phrase "progressive desegregation" rather than "full integration" would best characterize racial relations in the Baltimore community.

When the Baltimore School Board made its decision to desegregate, not a single government official or community organization opposed the act. When desegregation was challenged by the school strike of September 30, 1954, within two days the Police Commissioner publicly stated that there would be strict enforcement of the laws referring to disturbing school sessions and referring to inducing children to absent themselves unlawfully. Enforcement officers were thus able to break up picketing and end the strike completely within three school days after the Commissioner's statement. Moreover, the studied but prompt decision of the City Superior Court judge on October 5, 1954, made it clear that local desegregation by the Baltimore School Board was fully legal. This decision left no legal basis for further disturbances.

At the first enunciation of the desegregation policy, a large number of religious, patriotic, fraternal, and service groups applauded the decision. The important aspect of this community support was that it represented all shades of opinion, from groups often labeled "conservative" to those sometimes called "starry-eyed." Support by the press, radio, and television was significant from the beginning but especially effective during the strike.

Desegregation was primarily a school matter, but the community in general took pride in its accomplishment. Had it not been proved that Baltimore could work out difficult problems and take a stand on the side of right and justice? The school's success was due in large part to the acceptance of responsibility by the community.

DESEGREGATION AND LONG-STANDING NEEDS

To hold one's head high in satisfaction that a right and fair stand has been taken

[8] Baltimore Commission on Human Relations, *An American City in Transition*, 1955, Baltimore 2, Md.

is to improve one's vision. We can now see what needs to be accomplished, what lies ahead.

In general, desegregation has not brought many totally new classroom problems to Baltimore. It has, however, pointed up the importance of long-standing needs and concepts in American education. Among the requirements for teachers are those concerned with strengthening intercultural relations, understanding children, building staff morale, improving professional competencies, and working effectively with parents and community.

Improving Intercultural Understandings. The wide diffusion of school population has not only effected new racial groupings but has often brought children of varying socioeconomic and religious backgrounds under the same teacher. It becomes necessary then that teachers understand the social and cultural backgrounds of the children they teach and give attention to the mores that affect the lives of these boys and girls.

As desegregation takes place and Negro and white children go to school together for the first time, numerous cultural forces enter into the admixture. For example, in one Baltimore junior high school where the Negro school enrollment is 35 per cent, the 65 per cent white enrollment is largely Jewish. For most of these young people, the mingling of religious groups requires as many new understandings as do the new racial relationships. Since the elementary school experiences of these Negro pupils go back largely to the period of segregation, there were no contacts with Jewish pupils. Thus, for most of these Negro youngsters, the strangeness of going to school with white pupils is further complicated by going to school with Jewish boys and girls.

What is true of youngsters in such admixture is equally true of teachers. For example, at this same junior high school, one Jewish parent spoke very highly of the Negro teacher who was in charge of his son's homeroom section, but at the same time was both amused and concerned by the morning exercises which had included singing the devotionals "Yes, Jesus Loves Me" and "Were You There When They Crucified My Lord?" When the teacher was approached on this subject, it was very evident that he had little understanding of the religious beliefs of Jewish youngsters since, as a product of segregated schools himself, he had never come in contact with Jews.

The Negro teacher in biracial situations is not alone in the need for deeper understanding of children. A white teacher recently declared to the writer that the most important lesson he had to learn in working with Negro youngsters was that he should not settle for too little. As a product of all-white segregated schools, he had grown up with the belief that Negro youngsters are inferior in ability. At first his assignments to classes predominantly Negro were meager and at a low achievement level. In talking with other staff members, he learned that his expectations were not high enough. Wisely, he stepped up his requirements and found that while some Negroes were slow learners others were gifted pupils.

For many white teachers, the need for understanding children of low socioeconomic backgrounds, belonging to mobile families, is as urgent as the requirement related to racial understanding. In urban centers like Baltimore, newcomers to the city make up a large portion of the school enrollment. This is especially

true of the Negro population, which has recently increased to almost 30 per cent of the total city population largely because of the influx from the rural South. As a result, white teachers are often faced with learning the culture of the mobile rural sharecropper at the same time they are learning the mores of Negroes. These multiple understandings make it especially necessary for white teachers not to stereotype the new Negro boys and girls. Actually, to many of the urban Negro youngsters from middle-class families, these mobile children are just as foreign as they are to the white teachers.

Many Negro teachers lack understandings related to ethnic backgrounds of pupils. For example, one Negro teacher recently appointed to a junior high school with practically an all-white enrollment complained that he was having difficulty pronouncing the names of his Jewish students. It so happened that practically no Jewish children were enrolled in the school. It turned out that his difficulties were with names ending in "ioso," "ski," "onka," and "adas" belonging to pupils of Italian, Polish, Czech, and Greek backgrounds. He knew little about these ethnic groups and almost as little about the Roman Catholic and Eastern Orthodox religions which play such an important role in the lives of these groups. The segregated schools which the teacher had attended as a pupil himself had not brought him into contact with such groups.

Even the best-intentioned white teachers sometimes err in dealing with interracial relations. On one occasion, a teacher called to the writer's attention the fact that he had made the strongest appeal to the lone Negro boy in his class by asking him to "Remember that the eyes of the entire school are upon every one of your actions. Whatever you do for good or bad reflects on your entire race." This was a pretty heavy burden to place upon a young child. Moreover, no sociologist of merit would support the view that the actions of one person exemplify those of an entire race.

Negro teachers need to understand that they have picked up stereotypes about white youngsters just as white teachers have accepted stereotypes about Negro boys and girls. For example, it comes as a surprise to a few Negro teachers that there are some very slow white pupils. At times the reverse is true, and Negro teachers lack an awareness of rich cultural backgrounds in terms of trips, books, and personal contacts which pupils might bring to a new unit of work. This is especially true if the Negro teacher himself has not had these advantages.

Improving Child Development Understandings. Important as are the gaps in intercultural understandings which Negro and white teachers need to fill because of desegregation, yet even more important are those understandings which teachers as teachers (irrespective of race) need to have in dealing with children as children. These understandings are often pointed up at the time of desegregation, but actually the needs are ever-present. For example, one Baltimore teacher called the writer's attention to the need to observe the "islands within" that bring children of different races or religious groups or social backgrounds together in the same classroom, but often keep them apart on the playground, in the cafeteria, and in extracurricular activities.

On September 12, 1957, Dorothy Counts, a Negro high school youngster, left her North Carolina all-white high school because she "was all alone." Without minimizing Dorothy's personal problem, the problem of child loneliness is

pointed up for white as well as Negro youngsters at a time of desegregation. Moreover, this is an ever-present problem as related to children who are new to the neighborhood, pupils who come from different racial, social, and religious backgrounds, and boys and girls who just do not make friends easily. Dorothy stands as a reminder to teachers all over the country that the classroom needs to be hospitable to all children. She is also a reminder to teachers and pupils alike that they do have responsibilities to newcomers.

The problems of slow learners, culturally impoverished boys and girls, and poor readers exist apart from racial issues, though they are often pointed up by desegregation. In some school situations in Baltimore the problem has become more pronounced because of changed racial compositions. But the solutions are not those necessarily related to race. One Baltimore white teacher put it wisely when she said, "My new Negro boys and girls have had few opportunities to visit museums, hear good music, observe industrial processes firsthand, and see government in action. Only recently have community agencies been fully willing to include them in these opportunities. I'm going to see that they get these advantages."

Building Staff Morale. The high morale of Baltimore's teaching staff was the most important factor in desegregation. The continuance of this high morale at a time when many faculties, like student bodies, became biracial is a great tribute to Baltimore's teachers.

In Baltimore, teachers are appointed from graded eligibility lists which come into being as a result of examinations (National Teacher Examinations—Common Form), practice teaching, and interviews. Promotions are made from among those who have proved their worth through superior performance on the job. Those who desire promotions must qualify through examinations (National Teacher Examinations—Administrators and Supervisors Form). The most capable and the best-qualified are appointed. Before desegregation, Baltimore had two eligibility lists—white and colored—and teachers were appointed from the two lists. With desegregation, common lists came into being.

The last three years have witnessed a racial intermingling of faculties in some school situations. How have the Negro and white teachers been received?

In general, Negro teachers have been received by white colleagues and pupils much as any other teachers. If they were beginning teachers, the first year for them has been one of the same joys and problems experienced by all new teachers. If they were experienced, effective teachers, they were received warmly by most principals, pupils, and parents, as are all good teachers.

White pupils have accepted Negro teachers on the basis of qualifications. As one white youngster put it, "The first week I saw my teacher as a Negro, but as I recognized how good he was, I got to see him only as a teacher. I never think of him any other way."

Negro teachers who enter predominantly white faculties are in practically total agreement that many of their colleagues lean over backward in accepting them. Some Negro teachers worry most about how they will be accepted in faculty social situations such as the lunch hour and the Parent–Teacher Association social hour. They admit that at times they are more sensitive about social situations than they need be, but remind white teachers that, in Baltimore, eating to-

gether was and still is the most sensitive situation in racial relations.

A few Negro beginning teachers placed with biracial classes indicated that they would have preferred that the first teaching assignment be with all-Negro classes. As one man, a graduate of a Negro college, put it, "This is my first year in teaching and my first contacts with white children. There are too many things to learn at one time." This situation should be studied by Negro colleges with education majors. Such colleges should afford their students more opportunities of a biracial nature and make it possible for them to observe and possibly do their practice teaching in biracial situations.

In general, those Negro teachers who have had interracial experiences as adults tend to be more at ease during their first year in teaching biracial classes. If their own educational experiences in public schools and colleges included association with white pupils, the adjustment is a good deal easier.

Baltimore has a number of white teachers who are teaching in schools which had an all-white student body in 1954 but which have since become predominantly Negro in population. Many of the white teachers in the latter situations want to remain in their assignments as the school enrollments change racially. As one teacher put it, "I've seen this school change and many of my attitudes have changed along with the school. I've learned to understand the Negro youngsters and now realize that in general they are much like white children."

Some white teachers ask for transfers when schools change racial compositions. Some older teachers have found the adjustment more difficult than others and have sometimes asked for transfers, usually giving "too far from home" or other unrelated reasons for the transfer.

White teachers sometimes attach racial tags where they don't belong. For example, a white teacher in charge of the faculty committee said to her principal, "The new Negro faculty member is aggressive, like all Negroes." The principal reminded the white teacher that the Negro faculty member was a beginning teacher and wanted to show that she could do her part expeditiously. This was why she had worried the white teacher to get the program underway. Actually another beginning teacher who was white had made the same request. "Both are anxious to do well," said the principal. The white chairman of the faculty committee saw the point, smiled, and said, "If only these young teachers were not so impatient!"

On the other hand, some Negro teachers are overly sensitive. Some time ago a Negro teacher was criticized by the white chairman of a teachers' intercultural committee for handing in a paper that contained errors in grammar. The Negro teacher, in tears, came to the writer, who was also on the committee, stating, "She dislikes me because I'm a Negro." The writer calmed her down and informed her that he too had been corrected by this lady who was a perfectionist in English, but by no means anti-Negro. Actually, all three were working for an intercultural cause and the white chairman was an understanding, dedicated person.

Sometimes white teachers err in judging how well a Negro teacher will succeed with a mixed school assignment. The principal of a junior high school in an underprivileged industrial part of the city told the writer how hasty the white faculty judgment had been that his newly assigned Negro physical education teacher would be unsuccessful in this

all-white school. It so happened that this teacher's lack of cultural advantages was more than made up by his deep understanding of the problems of children of factory workers. He could talk their language.

Negro teachers often underestimate how well a white teacher will do in an all-Negro enrollment school. A year after desegregation a vacancy in a social studies department headship occurred in a senior high school formerly designated as a colored school and even in 1957 containing no white pupils. Best qualified for this position was a white teacher who had superior training in subject matter and methods and excellent ratings for his long years of experience. His grades on the promotional examinations were far above those of any Negro candidate. Most Negroes on the faculty concerned and teachers in general were pleased about his appointment, expressing satisfaction that the promotion had been given to such a highly qualified teacher. A few Negro teachers (and incidentally a few white ones) were concerned that the promotional opportunity had not been given to a Negro candidate. As one Negro teacher put it, "This promotion deprives us of an available opportunity. A white person would hardly know how to work with Negroes."

The white social studies head has now been in the school over a year and a half. He came with an excellent background in intercultural relations, having given freely of his evenings in volunteer work of an interracial nature. He knew how to work with Negro groups and had a good understanding of the particular neighborhood involved. He made an excellent adjustment and soon gained the respect and friendship of pupils and teachers alike. The principal of the school, when asked about this man said, "He has brought new insights to the faculty and has been an excellent coworker."

Incidentally, the appointment gave substance to the view that after desegregation the best qualified person would get the job, irrespective of race. (As noted, some Negro teachers had been appointed to schools with predominantly white enrollments.) Moreover, the teacher concerned became a symbol that the school in mind was desegregated. Most important of all was the view that good teachers can adjust to various situations and make important contributions when they are understanding and sympathetic.

With faculty as with children, there must be continual emphasis on building staff morale. When a faculty becomes biracial, it is well for principals to take a second look at some of the beliefs they have concerning teacher–teacher and teacher-administration relationships. Is attention being given at the "feelings level" as well as at the problem level when dealing with interpersonal relations? Are all segments of the faculty—the young, the experienced, the older teacher—making contributions to the commonweal? Are teachers working together or operating as cliques? Are some members of the faculty only partially accepted? Do all share in important decision-making? Are individual competencies used to advantage? These and other questions are not new when Negro or white teachers enter the faculty for the first time, but such occurrences give school principals opportunities to review practices.

Strengthening Faculty Competence. As the Supreme Court Decision implied, "separate but equal" schools never operated effectively and thus, graduates of segregated public schools and colleges are impoverished in different ways.

Many of those who graduate from all-white schools lack full understanding of intercultural relations and many who attend all-Negro institutions lack rich content background.

Have there been any predominant problems in respect to the competence of Negro teachers? The one that stands out most is that related to speech. Poor enunciation and pronunciation are so prevalent among Negro candidates that it has been necessary to introduce a speech test in Baltimore as an additional qualification for entrance into teaching. Morgan State College, in Baltimore, which trains many Negro teachers, has become so keenly aware of this problem that the administration has recently introduced new speech requirements for those preparing for teaching. As colleges realistically face this requirement there will be general improvement along these lines.

Since desegregation and the existence of a single eligibility list, it has become evident that, in general, Negro applicants who have had their collegiate training in impoverished and inadequate institutions tend to do much more poorly on the exams (National Teacher) than other Negro or white candidates who attended colleges with higher scholastic standards. (It is important to note that the National Teacher Examinations make up but one criterion for placement on the eligibility list. Nevertheless, a minimum score is required on this test as it is for other areas, for example, practice teaching.)

The problem of teacher competence in subject matter and in instructional techniques is one that goes beyond racial considerations. Talk to any principal about shortages in mathematics, science, and industrial arts and he will tell you that sometimes he must accept teachers who do not fully meet qualifications. Fortunately, for large cities like Baltimore, comparatively favorable salary schedules bring the more competent teachers. But even here, the problem of subject-matter preparedness is of real importance.

Desegregation has emphasized the fact that teachers are mobile and that their competence must be measured in terms of teaching requirements anywhere in America, if they are to be fully qualified. Thus all colleges offering courses in teacher education must have strong programs that prepare their graduates to teach in all parts of the country, including places where pupils have rich cultural backgrounds.

Working Effectively with Parents. The deepest concerns which white parents in Balitmore felt regarding desegregation were those related to health and social contacts. In fact, it was predicted that the most explosive areas would be those related to sports. When desegregation first came, the choice of opponents was left to each school, with no administrative compulsion. Without exception predominantly white schools included Negro schools in their schedules. At first the scheduled competition was largely in the non-contact sports, such as bowling, track, golf, baseball, and tennis. Later, such schedules included the sports involving contact, such as basketball, football, wrestling, and finally swimming. There have been no major incidents of an interracial nature growing out of any competitive contest since these steps were taken.

Moreover, it should be noted that as school enrollments changed, Negro athletes assumed important positions on school teams predominantly white. Mutual respect and understanding have grown out of these athletic situations.

As for social affairs, schools, in the main, have continued their school dances and parties. On a few occasions they have had to reschedule such activities because of hotel restrictions, but in most cases hotels and caterers have changed policies to accommodate school functions. When Negro youngsters attend such affairs, they bring their own dates and follow the customs of the city, dancing only with members of their race. Formerly popular Paul Jones and square dancing have been abandoned because of possibilities of mixed dancing.

Slowly, but in increasing numbers, Negro parents have joined Parent–Teacher Associations in schools that have become mixed racially. The fact that the Council of P–TA's in Baltimore had long brought together parents of both races helped white and Negro parents to feel comfortable in such situations, although at first some P–TA's in biracial schools felt that the officers needed to be representative of all groups, irrespective of individual abilities. (This was probably a valid point of view at the beginning in order to make all feel they were welcome.) More recently, the generally accepted view is that the most capable persons should hold office, providing they possess an understanding and acceptance of all groups represented in the school.

In talking with Negro parents in some racially mixed schools, the writer found that their concerns were largely in three areas. First, they were worried about whether their children would be fully accepted when desegregation came. On this score practically all parents had nothing but praise for the teachers and administrators. Their second concern was whether their children would be able to meet "the stiffer competition" and whether they as parents would be able to help them with school work. Here some mothers and fathers needed to be assured that teachers know how to deal with various ability groups and that in general parents can help best by encouragement and by providing a good study environment, rather than by personally assisting with home study. The third concern was related to racial composition of members of the teaching staff. Many Negro parents whose children attended a racially mixed school wanted their boys and girls to be taught by white teachers. As one parent put it, "Our children left a segregated school and only white teachers will bring the full advantages of desegregation." As can be noted, teachers and principals need to work individually with parents and with P–TA groups as a whole to dispel some wrong notions.

As for white parents in a racially mixed school situation, they have, as noted, been mainly concerned about social relationships which their children might have with Negro youngsters. These concerns have largely been dispelled, though principals need to be continually sensitive to the fact that this area is related to the most deep-seated mores.

Relating School to Community. In general, school enrollments reflect the racial residential pattern of the neighborhood. In Baltimore as in many other Southern and border cities, there are some neighborhoods with large Negro populations, mainly in the center of the city; however, there are small Negro housing settlements in practically all sections of the city. With this population pattern in mind, it is easier to understand why most of the former white elementary schools now have some Negro students and why for most of them the percentages are small. The Baltimore housing patterns also explain why all but two of the fifteen former white junior

high schools in the city have some Negro pupils enrolled.

Most of the senior high schools are regional schools, covering large sections of the city, rather than neighborhood schools. Negro enrollments in most of the former white high schools make up but a small portion of the total populations. Since there is no *districting* policy, the nature of the school determines the enrollment. For example, some Negro youngsters travel across town (as do some white pupils) to be able to attend the all-boys' technical high school, formerly white. Others travel long distances to go to the two all-girls' schools, which were formerly for white students only. Most of the Negro youngsters prefer to go to the high schools in their own areas; thus the three former all-Negro schools are still crowded. Incidentally, practically no white students have enrolled in these three schools, since they are in almost solidly Negro housing areas. The few white students who live near these schools prefer to travel across town to attend the predominantly white high schools.

The general policy in Baltimore is not to define districts for school attendance; thus the system opens all doors in schools without regard to race, but it seeks to avoid any action which deliberately forces pupils together to create mixed racial enrollments. The Baltimore policy rejects forced integration for the same reasons that it rejects forced segregation. The school authorities consider it wrong to manipulate children for any reason based on race.

The fact that Baltimore's Negro population is growing so rapidly has had a significant effect on the racial composition of the school enrollment. For example, in October, 1957 Negro boys and girls constituted approximately 50 per cent of Baltimore's elementary school enrollment and over 35 per cent of the secondary school population. The disparity between these figures and the nearly 30 per cent Negro population of the city lies partly in the fact that Baltimore has a large Roman Catholic and private school enrollment which is almost entirely white, and partly in the fact that the Negro community has a higher percentage of children of school age than does the white population.

Table I indicates the effects of rapidly changing neighborhoods on school enrollments. Note how rapidly Schools B, C, and D moved from biracial enrollments to ones nearly totally Negro. The changes evident in these schools indicate that once a school reaches 40 per cent Negro enrollment, it is reflecting neighborhood housing changes that are accelerating so rapidly that in a few years the enrollment will be practically all Negro.

An interesting phenomenon in connection with racial changes brought on by rapidly changing neighborhood patterns may be noted by School B in Table I. In June, 1954 the school was an all-white segregated school. From September, 1954 to October, 1957 it was desegregated, with increasing Negro enrollments. By January, 1958 it was virtually all-Negro in enrollment, and thus segregated again. The full cycle of segregation–desegregation–segregation had taken place in less than four years.

Since elementary schools are neighborhood schools, these rapid changes are most evident at this level. However, as a number of neighborhood changes merge and affect an entire region, the changes in turn bring about significant differences in junior high school enrollments (see schools E and F in Table I).

It is evident from Table II that where Negro enrollments are small they tend toward stability.

TABLE I

ENROLLMENT IN SCHOOLS WHERE RACIAL COMPOSITION IS CHANGING RAPIDLY

School	Enrollment as of October 31											
	1954			1955			1956			1957		
	N†	W	%N	N	W	%N	N	W	%N	N	W	%N
A*	36	399	8.3	116	311	27.2	226	277	44.9	348	236	59.6
B	104	152	40.6	240	70	77.4	387	30	92.8	1223	50	96.1
C	367	362	50.3	605	205	74.7	843	118	87.7	1072	79	93.1
D	128	833	13.3	299	711	29.6	761	505	60.1	1160	325	78.1
E	12	2504	0.5	154	2689	5.4	508	1534	24.9	749	1212	38.2
F	34	2029	1.6	134	1848	6.8	630	1490	29.7	1305	847	60.6

* Schools A through D are elementary; E and F are junior high.
† N = Negro; W = White.

TABLE II

ENROLLMENT IN SCHOOLS WHERE RACIAL COMPOSITION IS STABLE

School	Enrollment as of October 31											
	1954			1955			1956			1957		
	N†	W	%N	N	W	%N	N	W	%N	N	W	%N
A*	5	358	1.4	13	404	3.1	20	404	4.7	38	401	8.7
B	5	718	0.7	3	677	0.4	8	673	1.2	17	653	2.5
C	26	1737	1.5	78	1494	5.0	81	1506	5.1	88	1465	5.7
D	2	1786	0.1	1	1863	.05	3	1928	0.2	1	2103	.05
E	9	1048	0.9	18	762	2.3	26	785	3.2	23	842	2.7
F	30	2496	1.2	51	2516	2.0	74	2650	2.7	92	2866	3.1
G	3	1626	0.2	16	1647	1.0	20	1659	1.2	27	1684	1.6

* Schools A, B, and C are elementary; D and E, junior high; F, senior high; G, senior high vocational.
† N = Negro; W = White.

In fact the first year of desegregation brought negligible changes in those school situations where there were few Negroes in a neighborhood. Most of these Negroes elected to remain in the schools which they had attended the previous year even though a former white school was closer to home. By the second year, however, these few Negroes tended to enroll in the nearest school, especially if they had just graduated from one educational level, the elementary school, for example, and were ready to attend the next level, the junior high school. These pupils were joined by a few other Negroes from various parts of the city who, because of Baltimore's no districting rule,* could follow their inclination and

* In a few areas schools are districted. Pupils are kept from enrolling in these schools unless

attend a predominantly white school. By the third year of desegregation, Negro enrollments in these schools, located in predominantly white areas, seemed to stabilize at percentages slightly above the number of Negroes in the neighborhood.

Changes in community patterns and in school enrollments necessitate that teachers and principals become sensitive to the rates of change and to accompanying problems. A junior high school principal in a changing neighborhood put it very aptly when he said, "I need to be aware of the concerns of Negro and white groups and yet have a disinterested viewpoint. My school has become the bridge that carries the neighborhood through this period of change. Often the fact that Negro and white youngsters get together in my school voluntarily is proof to the neighborhood that they can live together."

In recording his observations of significant contemporary changes, the writer might well take note of the historian's caution that *it is difficult to get a true perspective of an event when one is so close to the occurrence.* Little more than three years have passed since the Baltimore School Board's decision on desegregation became effective. It may well be that men in other times and other places will see in the changes that have taken place in Baltimore heroics and problems which this observer did not note. Certainly other persons in the Baltimore environment might have selected other points to present.

The writer has looked at the scene, noted what he saw, and concluded that, for Baltimore, the first three years, while they admittedly have been a period of transition, on the whole have been successful. In general, teachers and other citizens alike are glad that the step has been made. They take pride in developments. They are somewhat concerned about living up to all the publicity accompanying "Baltimore's Progress," and hopeful that during the years that lie ahead they may work diligently on the yet unsolved problems.

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they live in the designated district. However, those who do live in the district are not forced to attend the school there; they may enroll in any non-districted school in the city.

The Self-Contained Classroom: An Assessment*

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IN THE days of the one-room school it was taken for granted that a single teacher would teach all subjects to all the children attending—beginners through eighth graders. Once schools in towns, cities, and counties grew into multiple classroom units, arguments began regarding best ways to organize them. One group of educators has sought consistently to preserve the values seen in having one teacher take major responsibility for a single group of children all day long. A label frequently applied to this arrangement is the *self-contained classroom.*

Caswell and Foshay are two curriculum specialists who strongly approve of placing responsibility with one teacher. They write:

> The best basic unit of organization yet devised is the self-contained classroom in which a group of children of similar social maturity are grouped together under the extended and continuous guidance of a single teacher.[1]

Opponents of the self-contained classroom fall into two categories. There are those who object to the literalness with which the concept has been applied in some schools. For example, one experienced elementary school teacher writes:

> The self-contained classroom in my estimation is a misnomer, if one is to adhere to a literal interpretation. I feel that a so-called self-contained classroom contains no more than a possibility of better unifying the learning pursuits. It cannot and should not contain more. It is home base for the exploring and discovering children and teacher. When there is a continuous reaching out, as there must be, for resources, ideas and people, it is the collecting place. How deadly would be the classroom which would contain all that the children were supposed to work with! Learning is searching and discovering (not always what one sets out for, since every learner is a Columbus) and succeeding and failing.
>
> The self-contained classroom is home base for organizing, evaluating, and intellectualizing experiences. It is the place where learners hang their hats if their job can be

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[1] Hollis L. Caswell and A. Wellesley Foshay, *Education in the Elementary School,* Second Edition (New York, American Book Company, 1950), p. 323. These authors give a full discussion of various plans of organizing the elementary school, pp. 315-30, including a useful bibliography. See also Muriel Crosby, *Supervision as Co-operative Action* (New York, Appleton-Century-Crofts, 1957), pp. 253-55, and Beatrice Davis Hurley, *Curriculum for Elementary School Children* (New York, Ronald Press, 1957), pp. 91-93.

done there or can be organized and planned there. In this concept of the self-contained classroom I do not fear limitations, a setting apart, and social isolation which I have observed in practice in some schools.

Education of children is made up of many things. It cannot be accomplished by one teacher. Neither can it be done well by isolation of classrooms within schools or isolation of classrooms from the community. The self-contained classroom is best seen as a deterrent to fragmentation and lack of organization in the learning experiences of children. It gives focus to the on-going educational process, which should continuously tap a variety of human and material resources.[2]

Educators who subscribe to the ideas presented by the foregoing statement do not object to putting children under the guidance of one teacher for most of their school-sponsored experiences but they do object to practices which seem to cut children off from contact with other teachers and specialists, other children, and school or community facilities outside the classroom.

A second group object to the self-contained classroom because they would like to see elementary school children taught by an array of specialists in various subjects. Educators in this group have developed various proposals for providing children with specialized teachers. Since they usually are seeking the least expensive solution to the problem, these educators fashion their plans around some form of departmentalization. It would be fair to say that such plans appeal greatly to the citizen group which sees only that facilities and space in a school building are being used 100 per cent of the time. For example, no classroom remains empty while a group of children is out working in the library or having a game period in the gymnasium. These citizens often are not aware that while facilities are being used on such an apparently efficient schedule, there may not be corresponding efficiency in learning on the children's part.

In a period of national emergency, such as finding the Soviet Union ahead in the missiles race, people often blame the schools for the predicament they are in and at the same time look to the schools to get the problem solved in a hurry. In the current welter of produce-scientists-quick schemes, the elementary school is on the receiving end of its share of advice, some wise, some questionable.

Two school systems already are cooperating with a university to experiment, under foundation subsidy, with an organization of the elementary school whereby language arts and social studies are to be taught in typical grade groups for part of the day, but the children are divided, for the remainder of the day, into homogeneous groups cutting through the grades vertically. Mathematics and science as well as physical education, music, and art are to be taught in the vertical ability groups. Whether this is a response to Sputnik or to the concerted drive to give special attention to the gifted is not clear. However, because many schools are meeting pressures to adopt all kinds of proposals directly challenging the concept of the self-contained classroom and because numerous schools have never yet achieved this type of organization, it seems timely to assess the idea as to both potentialities and actualities.

POTENTIALITIES OF THE SELF-CONTAINED CLASSROOM

In deciding upon a plan of organization, it is sensible to study both the opportunities opened up and those closed

[2] Kathryn A. Smith, formerly on the staff of University School, Kent State University, Kent, Ohio (unpublished manuscript).

off by the pattern chosen and then to make a judgment on the basis of probable gains and losses in learning efficiency. In other words, lacking research evidence based on carefully controlled comparative studies, our next best step is to *predict* (theorize) on the basis of what we know from research in child development and learning. The validity of such predictions is increased by observations of educators who have worked in both the departmental and the self-contained type of elementary school organization.

The possible contribution of the self-contained classroom to efficiency in learning may be examined with respect to (1) mental health factors, (2) use of time, and (3) availability of resources and facilities.

Mental Health Factors. It is a generally accepted fact that efficiency of learning is promoted when children's schooling is carried on in an atmosphere conducive to mental health. It is very important that a child have the help of a sensitive, accepting adult in assessing his strengths and weaknesses and in setting his aspiration level with respect to various facets of intellectual, physical, and social achievement. It is important that an adult who matters as much to a child as does a teacher have a chance to know the child as a total operating individual, not just as a learner of arithmetic, a reader, a speller, or a singer.

In a departmentalized setup it is hard for a child to qualify with the teacher of arithmetic if he is poor in that area, even though he may be adequate or even gifted in art or writing. To balance success and failure in one's school life, and to make constructive use of both, require guidance during the growing years by a sympathetic teacher who knows each pupil well and who has responsibility for few enough children to be able to care about each member of his class as a complete, learning person. The self-contained classroom gives the teacher opportunity to provide the kind of teacher–pupil relationships which foster mental health.

It is crucial also that a child feel that he belongs to and can help to shape the important school group that is his class. In a departmentalized school, the same children may stay together throughout the day as they change from teacher to teacher. However, it is difficult for a group to build a healthy, supportive esprit de corps when the status leadership changes every hour or so and, with it, expectations, standards, rules, and preferences change. Even if there were time on the specialist–teacher's agenda to help the group to work out cooperatively with him agreements under which the children were to operate in his class, it would be putting a great burden on a young child to help his group shape and live by so many different operating formulas daily. Later on, when the children are older, they can much more easily take on the task of responding to differences in leadership. In the self-contained classroom children work and play together in many different kinds of relationships under the eyes of one adult. They have a chance to learn about one another's potentialities and limits with the help of a person who is in a position to know and care about whole persons. Working out from a firmly grounded, consistently led home base, the children can begin gradually to take on learnings about how other adults are with children.

An important ingredient in mental health, and therefore in learning, is good feelings toward self and others. Developing these feelings can realistically be on

the agenda in the self-contained classroom. Attention to feelings and active work in promoting learning along this line are not the charge of, nor are they made easy for, the teacher meeting a succession of different classes throughout the day.

Use of Time. One of the greatest advantages of the self-contained classroom is the economy in learning afforded. This economy is effected in several ways. An important factor is the possibility of working on several goals at once. For example, while the teacher is helping children with social studies, he can also be helping them improve in reading skills. Knowing where his children are in various aspects of the task of learning to read, the teacher can reinforce certain skills when the children are working with written science materials or searching for an answer to a timely question arising in that no man's land belonging to no subject in particular. Helping children with spelling and correct written expression in connection with all subjects is the responsibility and opportunity of the coordinating teacher, whereas the departmentalized teacher often finds that children expect to write and spell correctly only for the English teacher.

The teacher in the self-contained classroom can work simultaneously on other goals also. Helping children advance in social learnings such as considerateness, justice, and critical thinking can proceed during snack time as well as during a writing time, during an art period as well as during a discussion in social studies. Helping children develop competence in personal–social problem solving is the sort of teaching which falls between teachers in a departmentalized school. The possibility of cutting across subject boundaries is essential for finding the time and creating the situation in which learning can take place through experience in solving real problems involving values.

The coordinating teacher can also study to see where each of his pupils is in a whole array of learning tasks. He can see where a child does and does not take responsibility throughout the day, to what extent he follows through on his own, and what his tempo and his fatigue patterns are at different times in the day. In other words, the coordinating teacher can know a great deal about his pupils' learning. Furthermore, he can help them learn more about their own learning and how to improve their efficiency in learning as a result of study of the total pattern of each child and the variations within it. The teacher in the self-contained classroom is not so likely to fall into the trap of expecting a child to work "up to capacity" simultaneously in each curriculum area as is the departmental teacher, who sees the child only in relation to his own area. Helping children become self-directed learners who can help to make realistic plans for themselves can be on the agenda of the self-contained classroom in a way that it cannot be in the departmentalized school, where responsibility for such pervasive learnings is everybody's business and therefore nobody's business.

A definite and appreciable advantage of the self-contained classroom from the standpoint of economy in learning is flexibility in use of time. To make a further comparison with the departmentalized school, the teacher of a subject has so many minutes each day to devote to that subject with a given class and each individual in it. Where one teacher is responsible for coordinating all the learning of one group of children, he can arrange a time schedule according to his

judgment and that of the children as they plan from day to day and week to week. On occasion, an extra five or ten minutes spent on arithmetic will clinch an explanation, whereas carrying over the lesson to the next day may mean almost starting over. A child who is in the middle of creating a story need not stop for arithmetic, and on another day may spend twice as long on arithmetic as the other children do. The teacher in the self-contained classroom may provide a block of time when children may work on different academic skills, each apportioning his time as best suits his learning rate in different areas.

The advantage of the self-contained classroom when it comes to carrying out studies or units cutting across subjects, or planning and scheduling trips and the use of resource visitors is no small one either. In short, where the departmentalized school is set up for working on separateness, the self-contained classroom is organized to allow time and opportunity for integrating and generalizing.

Availability of Resources and Facilities. The trend in school building design in recent years is to make the elementary classroom as self-contained as possible from the standpoint of entrances, lavatories, drinking fountains, and sinks with running water for such purposes as art work, science experiences, flower arranging, and general cleanup. This has allowed teachers to put to better uses the time formerly spent in policing corridors and lavatories, supervising lines at the drinking fountain, and dealing with the petty, school-made problems caused by schedules which deliberately overtaxed facilities at certain hours and underused them at others. The modern trend has saved time for children that they formerly spent waiting in line for various facilities or carrying pails of water to and from the classroom.

The ideal self-contained classroom is equipped also with such things as record players, maps and globes, and reference works, for time is wasted and enthusiasm for learning is dampened if teachers and children have to borrow such items back and forth. Also available in the ideal classroom is the wherewithal for certain music, art, science, and number experiences, and an adequate revolving classroom library, including children's magazines and newspapers. The time schedule allows for exploring the uses of such materials and therefore for some highly individualized learning.

REALITIES OF THE SELF-CONTAINED CLASSROOM

In actuality the self-contained classroom may live up to most of the potential just outlined. On the other hand it may not. The teacher may not be as approachable as one or more of the departmental teachers. He may not use his golden opportunity to know his pupils as total operating persons, while a departmental teacher having a child over a period of two or three years may come to know considerably more about him than his learning curve in the one subject. The teacher in the self-contained classroom may not help his pupils develop realistic self-confidence based on examining all their strengths. Creating a situation in which a teacher has a better *chance* to contribute to the mental health of his pupils is not a *guarantee* of this result. The solution is not, however, to take away the possibility. It is as if we were to say, "Some mothers do not furnish the mother love we believe so necessary for a good start in life; therefore, we shall not allow any children to have mothers!" If a type of organization has

more promise for accomplishing certain goals (better mental health, more integrated, more complete learning), then our best course is to work toward the realization of the potential that is there.

The same may be said for use of time. In some self-contained classrooms there is as much compartmentalization of subjects as in a departmentalized school. Putting one teacher in charge of the complete school day of a child is again no guarantee that he will make use of opportunities for helping children maintain continuity in learning. The intelligent course, however, is to continue a type of organization which invites and facilitates interrelatedness and attention to learning that falls between subjects and that makes it easier for a teacher to provide for all the ways in which a child may learn differently from his classmates.

The self-contained classroom may be more barren than the classroom set up for intensive experiences in one subject but it need not be so. If it is properly equipped, there are materials at hand for expressing ideas in social studies through art media or music, there are maps which may be used in arithmetic or science as well as geography. In short, materials are not departmentalized.

PROBLEMS TO BE FACED

All of the foregoing discussion comes under the heading of turning potentiality into actuality, a worthy if difficult goal. Other problems which must be discussed in assessing the self-contained classroom are: (1) misuse of the idea, (2) use of specialization, (3) teacher load, and (4) bases for forming a class group.

Misuse of the Idea. Certain economy-minded individuals have rendered a disservice to the idea of the self-contained classroom by interpreting it literally and using their interpretation as an excuse to dispense with the services of art, music, physical education, and other specialists or to maintain only a slender staff of consultants in these areas, insisting that the classroom teacher do all such teaching. Following the same line of reasoning they plan buildings with no central library, no space where two or more groups of children might be comfortable as they work together, no room for expression through body movement, no center where children might find equipment that would challenge them beyond the limits of the classroom. Thinking of the classroom as an isolation ward in charge of one teacher ignores the growing complexity of the world and how increasingly difficult it is for a teacher to keep up with the many developments which his pupils have a right to pursue as part of their organized education. As has already been pointed out in this article, no teacher can be all things to all children.[8] There is need for some way to bring specialization to bear in elementary education while retaining wholeness. Fortunately we need not choose between two extremes—on the one hand, a self-contained classroom with no specialized help for the teacher and, on the other, a departmentalized setup with all specialization and little or no provision for integration. We can add to the promising features of the self-contained classroom the advantages of specialization to supplement whatever specialization the teacher himself has been able to develop in the various curriculum areas common to the elementary school.

Use of Specialization. Furnishing supplementary specialization incorporates a number of problems in itself. What specialists are more essential for the elementary school? Is the answer the same for all schools? Where and how shall the

[8] Smith, *op. cit.*

specialists work? What should be the specialization of the classroom teacher?

For school systems which cannot afford an array of specialists in addition to regular classroom teachers, the "home base" teachers, together with whatever leadership they have, must perforce develop and share various specializations among themselves. More than that, the sharing must be done in such a way that the basic, integrating values of the self-contained classroom are not sacrificed.

In schools which can afford a certain number of specialists in addition to a teacher for each self-contained classroom, a useful principle to follow might be to provide specialists for all areas in which it would be desirable to have a specially equipped laboratory or service center to supplement classroom learning. On that basis there should be a librarian to take care of a central library collection as well as to help children locate materials, learn library skills, and develop a love for reading. The librarian would be available also to go to classrooms on occasion and to serve as a consultant to teachers as they attempt to do their part in fostering library learning.

Similarly, a school might have a laboratory for arts and crafts which might include a sewing center, perhaps a separate center for woodworking, a science laboratory, perhaps a separate center for cooking, possibly a music center, and a center for physical education and recreation as well as a health center. All would be manned by appropriate specialists. To increase an elementary school staff in this way would reduce the excessive load of the classroom teacher at this level. The opportunity to send an entire group, a small group, or an individual to work in the service center, or to secure the help of the specialist to work alongside the teacher in the classroom or take over the group by himself on occasion could mean real relief for the overburdened classroom teacher. It could help with the problem of providing special experiences needed by different children —the so-called gifted, yes, but all the others also, for each one has potential deserving of development.

For curriculum areas not requiring special service centers, the school principal and general supervisor may take responsibility for keeping up with new methods and materials and frontier ideas in order that they may supplement the competence of the classroom teacher in these areas. The suggestions and assistance of the specialist, who has time to keep up with developments in one or a few curriculum areas, can be of real help to the teacher in the self-contained classroom. Such an arrangement seems to be the only adequate one for meeting two important goals—maintaining continuity in the total learning of individual children and providing the specialization which can lead children as they reach out beyond the point where it is reasonable to expect any one teacher to be.

The classroom teacher himself must be a specialist of three kinds. First, he must specialize in child development and learning, particularly of the age group or groups he teaches and he must study his own pupils carefully. Second, he must keep on learning as much as he can about the areas which can best be handled in his classroom and in integrated fashion. Third, he must specialize in coordination. This means that he must gain as much familiarity as possible with the best thinking on the elementary school curriculum as a whole, he must continue to learn how to plan and evaluate with other adults and learn from them, he must study how and when to bring outside resources to his group and when to hold

them back, and how to help children tie together their learning from different sources. The theory of the self-contained classroom assumes, as much as anything else, that the time of the children and teacher cannot be demanded by any specialist.

Teacher Load. The staggering teacher load mentioned in the previous section results from a number of developments. Because the teacher in the self-contained classroom is considered responsible for all learning experiences of his children throughout the total school day, many have assumed that he must be present at all times, whether or not a specialist is actually teaching the group. There is a certain amount of justification for this view. If the teacher always absents himself or buries himself in paper work whenever a special teacher takes over, he is showing the children that this experience of theirs is not important to him. The teacher who does not become involved with the children in their experiences with specialists is not advancing in his knowledge of the special field and so remains as highly dependent on the specialist as before. Furthermore, he is in a poor position to carry on from where the specialist leaves off.

Nevertheless, a teacher who remains with a group throughout the day has no time during those hours for planning by himself or with other teachers, keeping records, conferring with a parent, gathering materials, writing reports, taking care of a multitude of clerical details that seem to plague every teacher, and getting a few moments of rest away from the children. In many schools teachers must eat lunch with the children in order "not to miss out on" the educative possibilities here. In addition, the teacher is expected and wants to participate in curriculum improvement activities for the building and the system and in parent–teacher activities and other community affairs. The elementary school teacher expects to lead a busy life and to do school work out of hours. However, the burden for many has become excessive and the quality of human relationships and teaching suffers as fatigue and tension mount.

Industrial research has shown the value of short breaks for workers. The demanding work of the teacher would seem to require relief periods for that individual as well. It seems that no way can be found to give the teacher of a self-contained classroom a free period now and then through a week without taking him away from his group of children part of the time. Staffs have worked out different ways to take care of the children while the teacher is out of the group. Among others, leaving children in the hands of a specialist for *part of the time* seems feasible. By careful planning the teacher can avoid missing all of the time any one specialist might have with his children and thus can keep up with his children's progress in each field. Planning with the specialist is required whether the teacher and specialist are to function as co-teachers for a time, whether the teacher is to be an observer on an occasion, or whether the teacher is to absent himself for a short time, leaving the specialist in charge. The teacher must be prepared to help the children move ahead in the area represented by the specialist as well as help them integrate new learning with old.

Time for planning with the specialist remains one of the knottier problems in childhood education. Departmentalization only heightens the problem, for exaggerated compartmentalization of children's experiences creates a bigger need for cooperative planning at the same time that

it fractionates responsibility for it. Furthermore, without a situation in which there is a sturdy whole (many common group experiences and strong threads of individual continuity in learning), participation of the children in planning best uses of specialized resources is not practical.

The self-contained classroom creates a situation where teacher and children can plan together for the coming of a specialist and can plan with the specialist to the extent desirable. Such cooperative planning can be made part of the children's education in learning how to learn —in this case learning how to use the expert.

Another knotty problem related to specialization in the elementary school is use of laboratories or service centers. Should they be available for the individual child who wishes to explore an area in ways and in depth different from the rest of his class? Should children have the right to choose one facility at the possible expense of others? Will they tend to specialize too early and perhaps never explore an area which might have proved to be of interest and use if given a try?

A reasonable position would seem to be that the elementary school should continue to provide for the common learnings and the general education of all children. This would include helping the children to have pleasurable and successful contact with various special areas which lend richness to living. With increasing specialization in the modern world, however, there is no excuse for holding back the child who can obtain a broad and more than adequate general education and still have enough time, energy, and interest to pursue one field more deeply—the beginnings of specialization as it were. For purposes of both a broad general education and early specialization, resource persons and facilities are desirable. Cooperative planning of principals, teachers, children, and consultants should solve the problems of scheduling the specialized areas of any one school to the best advantage of the children. This planning, of course, must assume a fairly flexible schedule within the self-contained classroom and sufficient supplementary resources to make "on-call" scheduling possible.

Formation of Class Groups. Frequently it is assumed that the self-contained classroom will be restricted to one grade or age group. When this policy is followed, school authorities sometimes recognize the contacts from which children are thereby excluded and provide appropriate remedies. Exchange of classroom visits, part- or all-school assemblies, a school council with supporting all-school committees, and school projects which bring pupils from different classrooms together—all are available as means of giving children contacts with other than their own classmates.

Another possibility is to create a group with planned heterogeneity—age differences of two or three years, difference in size, academic ability, and social development. Within a group planned so that ranges will be realistic but not too extreme for most teachers to handle comfortably, a multitude of combinations are possible. At different times during the day, through his own choosing or through teacher guidance, a child can find himself in homogeneous groups formed and re-formed for various purposes. In such a classroom a child can have the safe feeling of being supported by likeness while at the same time he may be challenged by the differences around him, inviting him to try something new, aspire to a new level, or just

take comfort in discovering the many ways there are to qualify in this world.

SUMMARY

The self-contained classroom, as our teacher–writer stated in the beginning, is in a way a misnomer. Few would propose seriously that children be isolated with one teacher day after day. Most see the value in supplementing the teacher's and the classroom's resources with other people and other materials and facilities. However, the need for a home base or coordinating center for the elementary school child is so great that this feature should be retained and all new proposals for elementary school organization should be tested against gains or losses in integration and continuity in learning. As the concept of the self-contained classroom is expanded to encompass supplementary specialization, it may be well to devise a new term. Perhaps we might rename the home base the coordinating center and name the teacher in charge, as we have in this article, the coordinating teacher.

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Education and the American Political System*

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PRESUMABLY most of the readers of this journal are students of education. From the perspective of such study, the patterns and processes of American politics may seem very important, but not always properly attuned to the "best" interests of American education.

This discussion is an attempt to reverse the glass, to look at American education from the perspective of a student of government and politics. First, the place of education in the governmental organization will be examined; second, some comments will be made about education and educators in the political process.

EDUCATION AND GOVERNMENTAL ORGANIZATION

To a political scientist, one of the most basic concerns is organization. In all arrangements for governing, power, or influence, or authority is divided among individuals and groups. In the American system of government the power to govern is more widely divided and dispersed than in most governmental arrangements. This is as true of education as an activity of government as it is of most others. Responsibility for education is divided between government and non-government and, within government, is distributed among a great variety of units and agencies and organizational devices.

Governmental power can be divided in many ways. Among others, it may be divided into functions, levels, and agencies.

Function. What is the place of education as a *function* of government? It is comparatively new in age and tradition. In these respects it does not rank with international relations, defense, police, the adjudication of disputes, and probably not even with the care of the poor or with the construction and maintenance of various public works. Although fewer things, comparatively, are done through governmental channels in this country than in many others, governmental activities now use about 27 per cent of the national income, leaving 73 per cent for non-governmental activities. Although education as a function of government has a shorter history than some others, it bulks very large in terms of the proportion of governmental funds and manpower presently devoted to it. Part, of course, of the educational effort

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and activity of the country is in the nongovernmental sector, but the larger portion of our educational effort is through the channels of government.

Education ranks very high among the activities of government. Only national defense absorbs a larger portion of governmental resources. Somewhat more than half of our entire governmental effort, as measured by expenditure, goes into international relations and national defense. Currently, of about $50 billion remaining for domestic and civilian activities of government in this country, education uses about $12 billion. Highways and transportation rank next among domestic governmental functions, but the appropriation for them is only about half as great as for education.

Although education is one of the newer activities of government, its relative importance as a function of government, as measured by expenditures, has been declining rather than increasing during this century. This decline has been caused almost entirely by the massive growth in importance and cost of the defense–international relations function. Omitting defense and international relations, the share of governmental expenditures going to education has varied up and down somewhat but has not changed substantially during this century. The cost of education has gone up greatly, but no more rapidly than the cost of other things done by government, and much less than the cost of defense.

Just as education is the biggest domestic user of governmental funds, it is also the biggest domestic employer of people. Approximately two million of the seven million civilian employees of government in the United States are engaged in the function of public education. No other domestic function is even a close competitor; only the defense program, using both civilian and military personnel, overshadows it.

Important as education is as a governmental function, it would be a mistake to consider it to be separate and entirely different from other governmental functions. It is natural for those engaged in furthering education, or health, or the adjudication of disputes, or the conservation of natural resources, or many other functions of government to consider that the function in which they are engaged has unique characteristics, with unique importance and unique values. True enough, every governmental function has certain unique features, but education and other governmental functions are closely intertwined.

The chief activity of a peacetime army, for example, is training (or education). The problems and techniques and even much of the subject matter resemble very closely and are closely related to those of the public school system. Public health is as much education as treatment. Social work and public welfare programs are closely associated with education in many aspects. It is hard to distinguish between public recreation and many phases of a modern educational program. The problems and functions of government are a seamless web; while education constitutes a large part of the web, it is linked in a thousand ways with the other portions of the fabric.

Levels. Governmental power is also divided into levels, or layers. In this country, as in most but not all others, there are basically three levels—here called national, state, and local. At the national and state levels, the governing units are distinct and clearly recognizable; at the local level in this country there is a tremendous jumble of units.

The superficial position, and the posi-

tion taken by many observers, is that particular functions of government are or should be assigned more or less exclusively to a particular level. Actually, some aspects of nearly all important functions of government are conducted at all three levels.

In the field of education, state and local governments are ordinarily vitally involved; the federal government has been less active than in many other functions, but there are a great many federal programs in the field of education.

For nearly a century there has been a tendency for the involvement of the higher levels of government in any particular function to increase at a more rapid rate than the lower. During the last fifteen years, this tendency has been stopped or reversed with regard to federal participation in all functions save that of defense. Meanwhile, the degree of activity at the state level has increased more rapidly than at the federal or local levels. Education is a good example of both the long term and the more recent tendency. At the local level of government, more responsibility for education has been vested in the larger units; state governments have increased their concern for the government and support of education more rapidly than have local units; federal activity, while still very limited, has continually increased, although perhaps not so much proportionately as that of the states.

This trend toward centralization does not mean that local involvement is decreasing, except in a comparative sense. Local government concern and participation in all functions, including that of education, ordinarily continue to increase, even though not so fast as state concern.

Increased activity at the state level and the national level, in education as well as in other functions, has resulted in considerable measure from two factors. First, the higher level units have had much better access to resources (largely financial but not entirely so); they can collect taxes more efficiently and equitably, and can minimize the restricting competitive effects of differing tax rates among the lower level units. Second, higher levels have been able to equalize in some measure the service performed by the units at the lower level; the difference in quality of school systems between wealthy communities and poor communities has been greatly diminished by state activity.

Agencies. A third type of division of governmental work is by agencies. Particular jobs are assigned to special organizational units. Within any governmental unit, functions are assigned to a great variety of agencies. There are ordinarily separate agencies for education—sometimes a considerable variety of them, such as university boards, trade and vocational training agencies, eleemosynary institutions for handicapped children, and school districts and agencies of varying sizes.

Various problems are involved in the bases and methods of setting up government agencies. Perhaps the most pervasive of these problems, and one on which some educational administrators and some students of political science do not agree, is the appropriate degree of autonomy or integration for each agency.

Many educational administrators, while agreeing to various arguments for integration *within* education, maintain that education is so unique a function that it should be organized in completely autonomous agencies or even separate units of government. These pressures for autonomy exist with regard to most governmental functions, whether for education or for such functions as health,

welfare, highways, police or courts, and are based upon somewhat similar forces.

Most important of the pressures for organizational autonomy is a preference for professional rather than political determinants of policy. Philosophers of education and students of educational administration (as well as philosophers and practitioners in other specialist areas) are adherents to the doctrine of ultimate popular control, but many of them are strong advocates of organizational devices insulating the actual practice of their profession from very much control by generalist politicians.

Professionalization in education, as in other areas, has brought great advances. The development of better techniques and higher standards of practice, tremendously enhanced mobility and continuity of service among personnel, and a higher degree of prestige and group feeling constitute enormous gains. The drive for professionalism and for autonomy in agency organization produces some real problems, however. First, there are always problems of coordination among governmental functions. As was suggested earlier, education as a function of government greatly overlaps other functions. Voluntary cooperation and coordination in program areas are frequently insufficient. Organizational separateness also makes more difficult certain housekeeping efficiencies, such as the purchase and use of land and buildings and supplies. More important, if various governmental functions have independent access to the financial resources of the community or state, central consideration of the increasingly difficult problem of allocation of resources among competing needs becomes difficult if not impossible. Second, agency autonomy and separation provide a different kind of, and perhaps an inadequate, responsibility to the people. To have the people elect separate officers of government responsible for each particular function of government (schools, roads, law enforcement, tax collection, etc.) makes impossible any satisfactory attention and consideration by the voters. The real channels of responsibility which develop are to especially interested portions of the population. In the case of education, separate electoral responsibility has probably resulted in greatly enhancing the influence of limited portions of the middle and upper middle classes which have concerned themselves particularly with the function.

EDUCATION AND POLITICAL PROCESS

Pressures for organizational autonomy are frequently associated with substantial distrust of the central political processes. It is particularly appropriate, then, to proceed to the second focus of this discussion—the nature of the American political process as it relates to education.

In a broad sense, politics is concerned with power and influence, with the search for and the exercise of control and authority. It is also concerned with policy—with the ends and goals of the use of power and influence. It is concerned with making decisions about policy.

Thus broadly considered, politics is of course not confined to government. It exists within corporations, within churches, within all kinds of human groupings, including families. Political scientists have, however, concentrated most of their attention upon the politics of legally constituted governments—the forces and influences working in and upon them, and the nature and characteristics of the policy decisions made within their framework.

American governmental politics is characterized by a high degree of diversity working within a considerable framework of unity. Policy decisions by governmental agencies in this country are a product of a very complex tugging and hauling involving a great many forces. Pressure is brought to bear upon the point of decision from many sources and in many ways. Individuals and groups in a highly plural society exert their influence through many channels. While the vote cast at the ballot box is very important, it is probably greatly outweighed by votes cast in many other ways—through membership in groups, through letters or expressions of opinion to officeholders, through signatures on a petition or appearance as witness or even as audience at a public hearing, through membership on committees, through subscription to one journal instead of another, even through talk at a social gathering.

Political actions and decisions are a result not only of these tremendously varied overt influences and pressures but also of estimates and anticipations of possible reactions which may follow alternative courses of political action. They are influenced by the state of learning and the whole complex of culture. The role of education in producing a particular climate of understanding or opinion which influences policy decisions needs no elaboration.

Education, of course, is one of the great participants in this intricate process of politics. Organized groups of educators and of educational clientele exert their influences with varying degrees of success. The content of education to which young and old people are exposed influences their political views and expressions. Education as an activity of government takes form and shape as a result of policy decisions, conscious and unconscious, which are the result of the great plurality of pressures and influences, overt or anticipated.

Not only is education a participant in the political process; there is a vast process of politics within education. There are divergent views and interests and groupings. There are laymen and professionals, administrators and classroom teachers, students and parents, higher education and elementary education and secondary education, city schools and rural schools, subject matter departments and groupings and special interests, along with the politics of personal mobility and advancement.

Policy decisions about education are made in the great political market place. Organizational arrangements, discussed in the preceding pages, are of importance largely because they give certain advantages of position to particular influences and forces, compared to other influences and forces.

A Russian satellite tossed into the sky has far-reaching political implications for educational programs. But these implications take shape and form only when considered in the context of many other circumstances and forces—attacks upon the educational curriculum by particular writers, the level of taxation, the role of teachers colleges and schools of education, the historical background of bills for federal aid to education, the position and role of local school boards, and which party is in power.

It may be that the very pluralism and complexity of forces in the American political process have been among the factors responsible for a considerable degree of basic unity. The American people seem fundamentally agreed on certain postulates—the primacy of the individual, an open society, certain civil

rights and freedoms, democracy as a governing doctrine.

While class and occupational differences are tremendously important in the American political process, the existence and the assumption of occupational and social mobility as a goal and to a considerable degree a reality have greatly reduced the tension and bitterness which such differences can sometimes engender. The multiplying differentiation into occupational and social groupings that has occurred in American society has made it impossible for any single group to hope to gain a preponderance of political power, or for other groups seriously to fear such an eventuality. This means that radical political changes are unlikely, and keeps the stakes of domestic politics, while important, from being matters of survival or destruction. The political parties find that chances of success are greater when appeals are made to the central tendencies of political views. The knowledge that sudden and drastic changes are unlikely if not impossible produces, in many respects, a higher degree of political apathy in this country than in most others. We are secure enough about basic political situations that we are slow to rouse.

This basic unity—a unity compounded of diversity—is evident with regard to public education. While limited groups of the population may have been given special influence over education by organizational arrangements, all groups know that they have political access and a degree of influence. Changes in educational policy come slowly, by the accretion of political forces from many places. The general public frequently appears to be indifferent to disputes about education, and educational issues, while sometimes sharp, are seldom considered bitter and crucial.

In these political processes all government agencies and most governmental individuals and citizens are engaged. Policy decisions are made in a market place involving a multitude of transactions of influence, of views, and of interests.

It is a common catch phrase that education should be kept out of politics. Another slogan, descended from our governmental theory of the separation of powers, is that educational policy is determined by the citizens and the school board, while school administrators and teachers merely carry out policy. Neither of these traditional views jibes with the description of the American political process suggested above.

The political process—the process of making policy decisions on the basis of forces and pressures felt and anticipated—occurs with regard to and within education just as in other governmental functions. These decisions are made not only by school boards but by school superintendents, principals, committees and groups of teachers, and by each teacher within his classroom. All of these participants in the policy-making process are engaged in politics, are politicians.

Who decides whether a school is "progressive" or "traditional"? The electorate, the school board, the state superintendent of education, the local newspaper, the chamber of commerce, the parent–teacher association, the principal, the professor at the state teachers college, the teachers in cloak room conversations, the teacher who reads an article in *Time* magazine and is influenced by it, the children who accept one approach and resist another. All of these and many more participate in the policy decision. All of these are a part of the political process in and around education.

To take education out of politics, therefore, is impossible. Choices can be

made as to which types and kinds of political influences will be given preference, which will be handicapped, but politics in a governmental program of the magnitude of education is inevitable. Educators tend to prefer, of course, professional politics to what might be called democratic politics. Any group which has, or thinks it has, a special lore and a special competence tends to feel that it should give the public what it ought to want rather than what it really wants (and what it "really" wants is not easy to determine). This is rationalized as staying out of politics. But, while this can be said, it can never be accomplished. All that can be done is to exercise some slight choice between kinds of politics.

CONCLUSION

In summary, education is one of the major functions and preoccupations of government, by most measures the largest next to the national defense. It has been traditionally conducted at the local and state levels of government, but state activity has been increased much more rapidly than local, and there have been significant federal programs for some time. As a function of government it is closely intertwined with a great many other functions and cannot clearly be separated from them. Education, like other governmental functions, is conducted by a variety of agencies. To varying degrees, these agencies are autonomous and separate from other governmental agencies. The forces of specialization and professional development tend toward separation; the separation of the various functions of government, including education, into autonomous agencies creates substantial problems in regard to coordination and central political responsibility.

American politics is concerned with the forces and influences which affect and determine policy. Educational policy, like other public policy, is determined in and by a political system characterized by a high degree of complexity and diversity yet resting on general agreements with regard to fundamentals. School administrators and teachers cannot be kept out of the political process. Consciously or unconsciously they are participants in the great social processes of decision-making.

Education is a vital part of government, and educators are vital participants in the political process.

Teachers College, Columbia University Register of Doctoral Dissertations

ACCEPTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

Volume IV, Third Annual Supplement

July 1, 1956—June 30, 1957

This *Register* does not include project reports submitted in partial fulfillment of requirements for the Doctor of Education degree.

It should be noted that titles of dissertions not yet published are sometimes changed at time of publication.

111. Miller, Maurice Herbert
Clinical application of paired masking enclosures in pure tone air and bone conduction testing of subjects having a differential in the hearing acuity of the two ears of thirty decibels or more. Microfilm, 1956.

112. Eastman, Daniel
Self acceptance and marital happiness. Microfilm, 1956.

113. Kent, Howard Robert
The effect of repeated praise or blame on the work achievement of blind children. Microfilm, 1956.

114. Gould, Irwin Bernard
Drug addiction and delinquency; an experimental study in persistence under changing conditions of reinforcement. Being microfilmed.

115. Wolf, Alvin
Stability of test performance of schizophrenic patients. Being microfilmed.

116. Lorand, Rhoda Leigh
Family drawings and adjustment. Being microfilmed.

117. Adelson, Daniel
Attitudes toward first names; an investigation of the relation between self-acceptance, self-identity and group and individual attitudes toward first names. Being microfilmed.

118. Reynolds, Wynn Robert
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119. Burnham, Marguerite Victoria Peterson
Imaginative behavior of young children as revealed in their language. Microfilm, 1956.

120. Tomblen, Donald Tracy
Anxiety and conceptual impairment in schizophrenia. Being microfilmed.

121. Wise, Fred Nathan
Effects of chronic and stress-induced anxiety on Rorschach determinants. Microfilm, 1957.

122. Calogeras, Roy Cuno
Some relationships between fantasy and

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123. HALPERN, SEYMOUR
The significance of critical flicker-fusion thresholds in cerebral palsied children. Being microfilmed.

124. RUSTEBAKKE, ALBERT RONALD
Achievement motivation before and after frustration and its relation to manifest anxiety in schizophrenic patients. Microfilm, 1957.

125. ARONSON, LEONARD
Self-distortion and distortion of others. Being microfilmed.

126. OBERLEDER, MURIEL B. FELDMAN
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127. VINTER, ROBERT DEWHIRST
Social goals and social participation among urban lower class white males. Being microfilmed.

128. BARKER, ELIZABETH FRANCES DUNNING
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129. GAVURIN, LESTER LIPMAN
Teachers of mathematics in liberal arts colleges of the United States, 1888-1941. Being microfilmed.

130. ZLOT, WILLIAM LEONARD
The role of the axiom of choice in the development of the abstract theory of sets. Microfilm, 1957.

131. ERNEY, RICHARD ALTON
The public life of Henry Dearborn. Being microfilmed.

132. IZZO, JOSEPH ANTHONY
A history of the use of certain types of graphical representation in mathematics education in the secondary schools of the United States. Microfilm, 1957.

133. NORRIS, RAYMOND CALVIN
Development of a set of dimensions for description of air force ground crew jobs. Being microfilmed.

134. BOLES, GLEN
Personality factors in mothers of cerebral palsied children. Microfilm, [1957]

135. JAEGER, MARTHA HOLLOWAY
Some aspects of relationship between motor coordination and personality in a group of college women. Being microfilmed.

136. WEINBERG, GEORGE HENRY
Clinical versus statistical prediction with a method of evaluating a clinical tool. Being microfilmed.

137. SUGARMAN, DANIEL ARTHUR
The relationship of success and failure to the recognition and evaluation of self-products by normal and schizophrenic subjects. Microfilm, 1957.

138. DIERS, HELEN ANNA
Factors in the understanding of others. Being microfilmed.

139. SHELSKY, IRVING
The effect of disability on self-concept. Microfilm, 1957.

140. YOGANARASIMHIAH, MALAVALLI
Some factors related to work attitudes in ninth grade boys. Being microfilmed.

141. CRITES, JOHN ORR
Ability and adjustment as determinants of vocational interest patterning in late adolescence. Being microfilmed.

142. STARK, PAUL JOSEPH
Some determinants of political activity among liberals. Microfilm, 1957.

143. GREGG, ROBERT LEROY
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144. WANGER, JACK CHARLES
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145. BROPHY, ALFRED LAURENCE
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146. SOLE, DAVID
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152. GREEN, LEAH ANN
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153. STEPHENSON, GEORGE ROTHWELL
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154. CURRY, WILLIAM LEE
Comstockery: a study in the rise and decline of a watchdog censorship; with attention particularly to the reports of the New York Society for the Suppression of Vice, to magazine articles and to news items and editorials in the *New York Times*, supplementing other standard studies on Comstock and censorship. Being microfilmed.

155. COSTA, LOUIS DAVID
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156. GRIMALDI, ALFONSINA MARY ALBINI
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REVIEWS

Higher Education in a Decade of Decision. Educational Policies Commission, NEA and AASA. Washington, National Education Association, 1957. xii + 152 pp. $2.00, cloth bound; $1.50, paper bound.

Thirteen years ago the Educational Policies Commission presented its ideas regarding American secondary education. Its report, *Education for ALL American Youth*, was imaginative, hard-hitting, and controversial. It made a stir, and has left a mark.

Now the Commission has turned its attention to higher education. Its report on this subject is entirely different in character. Generally speaking, it is commonplace, cautious, and dull. As a brief, systematic survey of the American college and university scene it is reliable, and may prove useful to certain audiences. Its middle-of-the-road recommendations are worth further consideration. But the report blazes no new trails and is unlikely to produce any excitement.

The Commission notes and praises the variety that marks higher education in the United States. It stresses the prospective expansion of enrollments and the equally highly publicized importance of attracting a larger proportion of our most talented youth. Expanded scholarship programs, making use of tests of academic merit and financial need, are favored. The desirability of better articulation between high school and college is noted. A slightly novel touch is the recommendation that one- and three-year, as well as two- and four-year, post-secondary programs be developed; but the defense of this view is very general.

As regards the evident need for rapid expansion of college and university facilities, the Commission urges state-wide and regional planning and declares itself in favor of the expansion and more efficient utilization of existing plants rather than much in the way of setting up new institutions. The issues relating to institutional size are not, however, really explored.

Brief and relatively familiar proposals are made for the improvement of both general and special education, and their more effective integration is favored. The educational value of extracurricular activities is stressed, and so is the desirability of dovetailing them with the curriculum. More responsibility for their own educational development should, of course, be placed on the students, and "newer methods of instruction" should be experimented with.

The importance of the research function of higher education is naturally not overlooked. And there are the usual recommendations that basic, as contrasted with applied, research should be emphasized, and that distortion consequent upon overconcentration in single fields (read "science") should be avoided.

There is a good word for academic freedom, and a special emphasis on the critical importance of faculties. "Recruitment and maintenance of outstanding faculties is the most urgent . . . problem of higher education in current years." "Faculty salaries, now lamentably low, should be given the highest priority in expenditures. . . ." Bravo!

Finally, after estimating prospective financial needs for higher education and taking a look at trends in the gross national product, the Commission concludes that the money can be found. The usual sources—individuals, corporations, and states—are looked at, and all are urged to exert themselves. The question of federal aid is handled in a rather gingerly fashion. "The trend of American life is toward increased federal responsibility and, unless states and

private donors are willing to increase very greatly their expenditures for higher education, it seems likely that increased federal support will be necessary to meet the expansion emergency of coming years."

One may sum up by saying that *Higher Education in a Decade of Decision* touches on all the major elements in the situation it explores, but at no point digs deeply. The style is clear but pedestrian. The book can help the interested but hitherto uninformed reader to get a sound general picture of the current higher educational scene. But it may be doubted that it will leave him with a sense of urgent personal responsibility to make up his own mind and to act in accordance with what he decides.

KARL W. BIGELOW
Teachers College, Columbia

Cubberley of Stanford and His Contribution to American Education, by Jesse B. Sears and Adin D. Henderson. Stanford University Press, 1957. vii + 301 pp. $5.75.

As time moves on and the decades pass by, it becomes more and more regrettable that the work of the notable leaders in the early years of this century who contributed so much to the development and advancement of the study of education may be forgotten. This becomes still more unfortunate as those who learned from them and worked with them pass from the stage. As an academic discipline, education in its manifold facets is hardly more than fifty years old. Apart from subjects known as pedagogy and school management there was in fact little material available at the beginning of the century to constitute a program of university study. When Dean James E. Russell discussed the possibility of a course in the administration of education with one of the prospective candidates for appointment, the latter stated that he did not think he would have enough material for more than two lectures. And even Paul Monroe is reported to have told the Dean that he did not believe that there was enough content for a course in the history of education. In another area, Edward L. Thorndike had to transfer the knowledge that he had acquired in the study of animal psychology and statistical methods to the field of educational psychology.

After 1877, a few chairs were established in education, but it was not until the end of the nineteenth century, under the influence of Nicholas Murray Butler and James E. Russell, followed a few years later by Ellwood P. Cubberley, that a vision of the scope and function of university departments of education began to be caught. In 1900 Dean Russell stated that "university departments of education have as their special function the investigation of educational foundations, the interpretation of educational ideals, the invention of educational methods, and the application of educational principles. The science of education needs to be developed and made over to fit modern conditions." Two years earlier, in a letter to Edward Howard Griggs, who had inquired whether he would accept an appointment in the Education Department of Stanford University, Cubberley wrote: "I feel that I have much ability along the lines of school administration, school problems, school organization, school statistics, secondary schools, history of education, relation of ignorance and crime to education, etc., and that in these and similar lines I could work up fine courses, making them better each year. I have a dozen courses in mind that I could work up, courses that would not be so much a summation of present knowledge as courses of suggestion for future action." Before Cubberley joined the Department, Griggs had left; and Cubberley had a free hand to develop "high grade university work . . . toward the attainment of ideals in the future rather than of small practical results in the immediate present."

Thus arose in the East, Teachers College, Columbia University, under James E. Russell and in the West, the Department of Education of Stanford University under Ell-

wood P. Cubberley. There was, however, this difference: while Dean Russell selected men of ripe scholarship in their various fields of specialization, Cubberley made himself responsible for the development of the study of the history of education and of school administration and supervision, and associated with himself Lewis M. Terman and later Truman Lee Kelley to develop the fields of educational psychology and intelligence testing and measurement.

Cubberley must have owed a great deal to his years as a student at Teachers College, which was at that time a fertile field for the development of materials for the study of educational history and aspects of school administration, a development in which both faculty and students cooperated. Among his colleagues in this work of pioneering were Edward C. Elliott, Bruce A. Payne, Fletcher H. Swift, George D. Strayer, Henry Suzzallo, and many others who were to labor in the same vineyard.

Cubberley of Stanford is more than a biography written by a colleague and a student; it is a history of the development of the two subjects with which Cubberley's name will always be associated—the history of education and school administration, both of which he cultivated because of his devout faith in American education and a desire to raise the cultural level of education as a discipline. Because of his extensive influence throughout the country, the subtitle of the book should have been given more emphasis even than the main title.

The book is an enlargement of a dissertation by Henderson and suffers a great deal from repetitiveness. Some of the early chapters could have been compressed into one short one; the chapter on Cubberley's financial acumen, which made possible the many grants to the University, seems irrelevant. But more serious is the effort to link Cubberley's approach to education with his early study of geology and his association with David Starr Jordan. Cubberley's strength lay in the breadth of his approach to education, which came from his devotion to the history of education and education as public policy, both of which transcend what later came to be called the scientific approach to the subject.

Despite these criticisms, students of education are under a debt to the authors of *Cubberley of Stanford*. It is to be hoped that this work may be followed by others on the pioneers of the study of education as a university discipline.

I. L. KANDEL
Ankara, Turkey

NEA: The First Hundred Years, by Edgar B. Wesley. New York, Harper and Brothers, 1957. x + 419 pp. $5.00.

In August 1857 a group of forty-three "practical teachers" were assembled in Philadelphia to form a National Teachers Association for the express purposes of elevating the character and advancing the interests of the profession of teaching, and promoting the cause of popular education in the United States. This is the centennial year of the National Education Association; its objectives today are identical with those of one hundred years ago. However, it has come a long way since 1857. By way of celebrating its one-hundredth birthday the NEA asked Edgar Wesley, a skilled historian, to tell the story of the organization and its activities. This volume is the response to that request.

Professor Wesley has given us not so much a straight history of the organization as an outline of certain aspects of American education in which the NEA has played an important role. Considering the scope of its activities during the past century, one is indeed treated to a vast panorama of educational progress in our country, as well as a close glimpse at how the NEA has evolved to what it is today—a mammoth organization claiming a membership of approximately 700,000 with 66 state associations and 6,000 local associations affiliated with it.

The organization of the book is worth noting. The author does not adhere to a strictly chronological sequence, but skips

back and forth in time as he deals with various phases of the Association's history. The work is divided into five parts, each one touching upon a different aspect of the Association's activities. The footnotes consist almost entirely of references to NEA *Proceedings*, the official minutes of the organization. This is unfortunate in a way, since the story might have proved even more interesting had Professor Wesley consulted additional sources of information, thereby achieving added breadth to his discussion. Part I is devoted to the first few years of the organization's existence. This probably holds most interest for the serious student of educational history.

Part II, entitled "Development of American Education," includes chapters on the rise of the high school, normal schools, and teachers colleges in the United States, the advance of higher education, and the changing curriculum. The author does not claim that the NEA has been solely responsible for everything good in education. Most attention, however, is given to the contribution of the NEA and how, through its policies, committees and departments, it has served to advance these important developments in American education. Part II also contains an interesting chapter on "Hails and Wails," in which the author shows graphically that criticism of the schools is not limited to our day and age. Witness, says Professor Wesley, this pronouncement, written in1864: "The readers and speakers admitted into the grammar school within the past two years, or since this reading furor has existed, are not equal to those of former years."

The yearly NEA meetings have served as the battlefields for some of our most important educational reforms. Such subjects as object teaching, the kindergarten, child-centered education, coeducation, the Herbartian Movement, and the Progressive Movement are treated in Part III under the heading "Educational Reforms." The author makes the point that through its conventions and publications, the NEA and its departments played a large role in these movements, acting as a synthesizer rather than as a creator of educational change. One is impressed with the general objectivity of the presentation. Too often in treatises of this sort authors are prone to exaggerate the influence of the agency or association they are studying.

Occasionally, however, this author reveals what appears to be a trace of bias. In Part IV, "Lost Causes," in the chapter entitled "Teachers and Temperance" we find this statement: "The official position of the association (on temperance) was made clear, however, by resolutions and statements of principle. In 1918 it urged teachers to approve the prohibition amendment, and in 1920 and 1930 it endorsed the 18th amendment and called for the impartial, fearless enforcement of the Volstead Act." On the very next page of this volume he writes: "So it seems that the relative neglect of prohibition and all its problems by the NEA is simply an instance of clear-eyed perception between public action and public education." This inconsistency however is the exception rather than the rule and the author has supported most of his generalizations with ample evidence.

In Part V of the book, "The NEA Builds a Profession," the author delves into the inner workings of the organization. It is interesting to note that it was not until 1920 and the establishment of the Representative Assembly and the ubiquitous *NEA Journal*, that the organization could be deemed truly representative in terms of membership. In that year the enrollment jumped from a little over 10,000 members to nearly 53,000. This certainly makes a strong case for the democratization of educational organizations.

One wonders how defensible the author's conclusion is regarding teaching having attained the status of a profession. The last sentence in the chapter "Advances Toward a Profession" reads as follows: "In fact, education has become a profession." While this enthusiasm is understandable, many educators are of the belief that certain harsh facts controvert such an assertion. That we are

rapidly moving in this direction is certain, and there can be no doubt that the efforts of the NEA have contributed greatly to the advancement of standards. Moreover, the day is surely not far off when the profession of teaching will truly deserve the name. However, as the NEA itself has often pointed out, in terms of academic preparation and professional outlook, we still fall short of the levels reached by such recognized professions as law and medicine.

The last two chapters deal with the work and the contributions of the 30 departments of the NEA covering nearly every aspect of the educational enterprise, and the outstanding contributions of the Research Division and the Educational Policies Commission. The stories of these various branches furnish real insight into the history of educational progress in our country.

Professor Wesley's volume is well worth reading. Despite certain minor flaws, it affords a solid documentation of many of our more important educational advances, as well as an absorbing analysis of our most effective and representative education association.

WILLARD S. ELSBREE
JACK H. KLEINMANN
Teachers College, Columbia

Half the World's Children: A Diary of UNICEF at Work in Asia, by Spurgeon M. Keeny. New York, Association Press, 1957. xxvi + 243 pp. $3.50.

Of the various agencies associated with the United Nations there are few that have caught the imagination and the support of the people throughout the world as much as the United Nations International Children's Emergency Fund. In the United States children in many communities forego the usual harassing of neighbors on Halloween to collect money for UNICEF. The medium of television, using the genius of Danny Kaye, has helped to explain what UNICEF is and what it is undertaking throughout the world. There are official reports with statistical charts pointing out, for example, the success of campaigns to eradicate yaws and there are brochures published by the agency that give brief accounts of specific projects.

Half the World's Children tells the story of the first seven years of UNICEF and its attempt to establish food and medical programs in Asia. The author is Asia Regional Director of UNICEF. As 40 per cent of all UNICEF work is concentrated in this area, the account given by Mr. Keeny is a good representation of the work carried on by this agency.

The book is written in a popular style and is meant for the public rather than the specialist. As UNICEF is concerned with those areas where the mortality rate of children is the highest in the world, this could have been a book of tragedy. There is of course tragedy in it, but there is also humor as well as the optimism that seems to be typical of those who are working under what appear to be impossible odds.

Interspersing the reports are observations on the cultural life of the people and humorous accounts of the difficulties faced by the Director while visiting projects that range from the Philippines to Afghanistan. This diary style is such that it would be easy to miss some keen observations made and conclusions reached by Mr. Keeny. For example, his statement on the type of person who works well in these projects might suitably be followed by the International Cooperation Administration of the United States and other United Nations agencies. Perhaps if the book had been organized in areas rather than chronologically it would have been more effective.

In any case the effectiveness of UNICEF from its start in Asia in 1950 to the establishment of 125 projects in 1957 is a tribute to a staff working on a limited budget and faced with the tremendous problems of cultural transformation. The book emphasizes one aspect of UNICEF that is so often overlooked in general accounts—the fact that UNICEF is not simply a relief agency but rather is concerned with building projects

that will be permanent. It will always have as one of its functions meeting emergencies such as assisting with mass inoculations against cholera and typhoid in flooded areas, but beyond this it is active in helping to build permanent projects that will serve to reduce emergencies. Typical in this regard is the work being carried on so effectively for the eradication of yaws, or the establishment of a soya milk plant in Indonesia and mother-and-child centers in Bihar. The "Emergency" in UNICEF is thought of in terms of both immediate and long-range planning.

Half the World's Children will be read by many people who are already committed to the philosophy of UNICEF. It should be read by those who ask what can be done when the problems are of such magnitude. Here is a balance sheet which shows the results achieved with limited funds. How many lives could be saved, how much suffering could be spared if additional funds were available!

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Fiscal Readiness for the Stress of Change, by Paul R. Mort. University of Pittsburgh Press, 1957. 97 pp. $1.00.

It is far more than fiscal readiness for the stress of change that the author pleads for in the 1957 Horace Mann Lecture, fifth in an annual series sponsored by the University of Pittsburgh. It is for readiness itself.

Long an able, articulate, and discerning critic of forces that impede educational progress, Dr. Mort, in a penetrating presentation has developed a synthesis of views and convictions with which for many years he has been familiarly identified. The result is a distinguished and significant contribution worthy of wide reading and discussion.

Well known for his impatience with educational lag, Dr. Mort wastes no time in laying bare his conviction that "our schools fall far short of our needs." This deficiency is due in large measure, he holds, to what he refers to as "the foundation of the schools" which, in turn, he describes as the inadequacy of the basic law by which schools are operated and governed.

Critical of the "legal under-pinnings of public education," Dr. Mort argues that lay and professional leadership seeking to rectify deficiencies must overcome three serious shortcomings "(1) artificially induced poverty, (2) lack of access to adequate resources, and (3) lack of responsive political machinery through which the community's concerns may be realized." To each of these three areas of concern the lecture addresses itself and concludes with the listing of six factors essential to the accomplishment of what is referred to as "a task of modernization of huge proportions."

This description of what must be done takes on the characterization of which Dr. Mort is seldom guilty—understatement. In the bill of particulars the state legislature "or some other responsible body" (which is unidentified) is called upon to "overcome the destructive effects on education of poverty induced by the decision to operate as school districts," "to keep the tax system in such adjustment that local autonomy shall not be throttled merely for lack of access to the resources the community has," and "to establish fiscal control machinery that will give each community an important measure of control over its educational destinies." On the state department of education is placed the responsibility of keeping "a continuing chart of the locus of effective control over education and [of hauling] to court any educational officer or officer of any other aspect of government, local, state, or federal, that through administration warps a law so as to enhance central power to a degree not explicitly spelled out in the law." Where interpretation of the law becames necessary, Dr. Mort would have the courts "decide in favor of the more local level of government." Finally "on petition of citizens alleging undue delay in action on educational concerns by the constituted authorities, pro-

vision shall be made for a popular vote at the next general election on the issues enumerated in the petition."

This action program Dr. Mort identifies "in the public domain." He calls upon "volunteers" to undertake it, holding that "the call to leadership is to grasp the great strategic problems that have come to be the people's problems." In a manner entirely characteristic and underscoring a contention long held, Dr. Mort concludes: "Our school system has made a poor response to the stresses of change. Inertia has been mistaken for stability. Minor responsiveness has been mistaken for stability."

Had this Horace Mann lecture been delivered later in 1957, it is quite probable that in light of world-shaking events of the autumn Dr. Mort would have spoken out even more boldly than he has. Brief reference, too, to the problems confronting education today involving sorely needed curriculum change, a vitalization of the entire educational process on all levels, not to mention more teachers, more buildings, and more facilities necessary to educate more girls and boys, would have served to underpin the presentation with added conviction and documentation.

As Dr. Mort has so frequently expounded, the most valid tradition of American life is the tradition of change. Today when we consider change we think of it in its total climate and environment, representing, as it does, all of the conditions of life. With science's postulate "adjust or perish" Dr. Mort is familiar. No less a responsibility confronts American education today. Not only to make change possible but to have it serve the needs of a society we hope to perpetuate and improve, our total educational program must contribute. It is to the heart of this process that Dr. Mort addresses himself, ably and convincingly. All who know and recognize his capabilities hope that on some occasion equal to that on which this distinguished contribution was made he will pursue the thesis of change further and encompass more of its anatomy. With his diagnosis and prescribed treatment no thoughtful student of the current educational scene can disagree. The findings of a skilled diagnostician warrant consideration, acceptance, and action.

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